Biol. Chem., Vol. 386, pp. 1337–1339, December 2005 · Copyright © by Walter de Gruyter · Berlin · New York. DOI 10.1515/BC.2005.154

# Author Index


Abdelmohsen, K. 217
Abdel-Wahab, Y.H.A. 581
Aceto, S. 307
Agmon, I. 833
Ahmadian, M.R. 1105
Akoachere, M. 41
Al Sarraj, J. 873
Albrecht, B. 61
Alfsmann, J. 1279
Alonso, J.C. 881
Alves, M.F.M. 699
Amir, R. 817
Araújo, A.P.U. 561
Araujo, M.S. 699
Araújo, R.C. 515
Arnhold, M. 101
Arnold, K.A. 503
Avellar, M.C.W. 515
Avrutina, O. 1301

Bacher, A. 127, 417
Bachmann, S. 785
Bader, M. 515
Badouard, C. 333
Baici, A. 75
Bailey, C.J. 679
Bajak, E. 333
Bakker, H. 657
Banks, L. 705
Barbetti, V. 919
Barinka, C. 339
Barnekow, A. 671
Barra, A.-L. 1043
Barral, J.M. 753
Barros, N.M.T. 699
Barroso-delJesus, A. 183
Barthel, A. 207
Bascands, J.-L. 515
Bashan, A. 833
Baudyš, M. 941
Becker, C.F.W. 1105
Becker, K. 33, 41, 1129
Becker, P. 745
Beekes, M. 1149
Behlke, J. 881
Beke, E. 319
Beltramini, L.M. 561
Bennati, M. 961, 1007
Bereta, J. 801
Berger, P. 391
Berger, R.G. 435
Berkessel, A. 1035
Bernhardt, R. 663
Bernhardt, W.M. 785
Berzal-Herranz, A. 183
Beste, A. 1105
Bhoola, K.D. 101, 167, 375
Bilbilis, K. 671
Bindereif, A. 1265
Bisswanger, H. 11
Blouse, G.E. 111
Bobba, B. 319
Bode, W. 759
Boffi, P. 319
Bogyo, M. 931
Boll, M. 989, 999
Bollig, F. 1287
Bolscher, J.G.M. 137
Bontems, S. 255
Borgoño, C.A. 291
Böttger, L.H. 1043
Bourenkov, G.P. 759
Bouws, H. 435
Bozóky, Z. 609
Breidert, S. 155
Breithaupt, D.E. 435
Buchanan, G. 69
Buchner, J. 633
Buckel, W. 951
Bukau, B. 739
Bulat, S. 1035
Bureik, M. 453, 663
Burk, O. 503
Butler, L.M. 69
Bzowska, M. 801
Bzowska, M. 801

Cabanes, J. 601
Caffrey, C.R. 339
Carmona, A.K. 699, 1191
Carvalho de Souza, A. 901
Catharino, S. 633
Cesar, V. 777
Cezari, M.H.S. 1191
Chaudhuri, P. 1023
Chen, P.Y. 1205
Choi, E.-J. 1173
Chu, K.T. 19
Chudzinski-Tavassi, A.M. 369, 589
Chung, K.F. 53
Churumova, V.A. 285
Clayman, G.L. 1173
Cloutier, S.M. 291
Coetzee, G.A. 69
Conforto, B. 307
Contzen, J. 1043
Cortes, J. 361
Cotgreave, L.A. 333
Cotrin, S.S. 1191
Cramer, M. 865
Creighton, D.J. 41
Cruciani, V. 325
Curtidor, H. 361
Czajewska, K. 1

Dallet-Choisy, S. 391
Dandekar, T. 1165
Daniel, H. 785
de Oliveira, C. 561
de Souza Ventura, J. 369
de Souza, A.F. 1185
Decking, U.K.M. 217
Deelder, A.M. 901
Delli Bovi, P. 307
Dello Sbarba, P. 919
Deperthes, D. 291
Deponte, M. 33, 41, 1129
Dergunov, A.D. 441
Derouet-Hümbert, E. 453
Dersch, P. 1115
Desmaret, S. 1137
Di Gennaro, S. 383
Di Maro, A. 307
Di Valentin, E. 255
Diamandis, E.P. 291
Diederichsen, U. 1301
Dihazi, H. 895
Dlouhá, H. 791
Dobreva, I. 909
Dobritzsch, D. 319
Dobrucki, J. 463
Doenecke, D. 541
Dolečková-Marešová, L. 941
Döring, F. 785
Dostál, J. 339, 791
Dousset, M. 1035
Dumpitak, C. 1149
Duś, D. 463
Dutko-Gwóźdź, J. 463
Dvorsky, R. 1105

Eberharter, A. 745
Eberth, A. 1105
Eichelbaum, M. 503
Eleftheriou, P. 225
Elsasser, S. 725
Enns, G.M. 319
Erbes, R. 53
Erdmann, V.A. 857
Eschrich, K. 895
Escribano, J. 601
Eynott, P.R. 53

Farkasovsky, M. 643
Farzaneh, F. 95
Feicht, R. 417
Felber, L.M. 291
Fenoll, L.G. 351
Ferreira, R. 745
Ficca, A.G. 383
Finazzi Agrò, A. 25
Fink, E. 101
Finley, D. 725
Fippinger, A. 1279
Fischer, A. 53
Fischer, M. 127, 417
Fischer, O.M. 845
Flatt, P.R. 581, 679
Florent, I. 401
Floris, G. 25
Ford, K.G. 95
Forero, M. 361
Franz, A. 279
Friedrich, P. 609
Fritzen, M. 369, 589
Fuchs, G. 989
Fucini, P. 1239
Fueller, J. 1165
Fuentes, M.-E. 689
Fulgosi, H. 777

Gabrijelcic-Geiger, D. 1301
Gafni, A. 111
Galander, M. 1043
Galili, G. 817
Gandía-Herrero, F. 601
Ganea, E. 269
Gan-Erdene, T. 941
Garcia, J. 361
García-Cánovas, F. 351
García-Carmona, F. 601
García-Molina, F. 351
García-Moreno, M. 689
García-Ruiz, P.A. 351
Gassmann, M. 865
Gaudio, L. 307
Gault, V.A. 679
Gauthier, F. 401
Geick, A. 503
Gelhaus, C. 499
Georgiev, O. 865
Gerardy-Schahn, R. 657
Gerber, P.A. 217
Gettemans, J. 1137
Getzlaff, R. 435
Ghebremedhin, B. 1287
Ghosh, M. 85
Giehl, K. 193, 225
Gilabert, M.A. 351
Giuntoli, S. 919
Glaubitz, K. 1035
Goette, M. 623
Golding, B.T. 951
Gomes, C.M. 1295
Goody, R.S. 1105
Goud, B. 671
Gowrishankar, G. 1287
Green, B.D. 679
Greenbaum, D. 931
Greer, B. 679
Gregorc, U. 705
Groenink, J. 137
Groneberg, D.A. 53, 785
Grooten, J. 1137
Grunert, H.-P. 857
Guha, S. 753
Gutzeit, H.O. 279
Guyot, N. 391
Gwóźdź, T. 463
Gygi, C.M. 291

Haase, I. 127, 417
Habran, L. 255
Hahnefeld, C. 623
Hamann, N. 961
Hanakawa, Y. 1173
Hanna, J. 725
Hansen, D. 561
Happel, N. 541
Harding, J.J. 269
Harms, J.M. 1239
Harriott, P. 679
Hart, S. 845
Hartl, F.U. 753
Hartmann, R.K. 1273

Hatano, K.-i. 491
Häussinger, D. 1065
Hedderich, R. 961
Heider, J. 981
Hein, R. 225
Heinz, D.W. 971
Hejgaard, J. 1319
Hekman, M. 1165
Helmer, A. 1065
Henderson, M. 69
Hennighausen, L. 845
Henrich, B. 1055
Henrich, S. 759
Henrich, V. 463
Herberg, F.W. 623
Herter, P. 643
Hesse, H. 817
Hillebrand, A. 523
Hirata, I.Y. 1191
Ho, P.L. 589
Hoefgen, R. 817
Hofer, T. 333
Hoffmann, F. 1157
Hofstetter, M.M. 1197
Hokke, C.H. 901
Holak, T.A. 85
Holtmann, H. 1287
Hook, G. 931
Hook, V. 931
Horn, M. 941
Hoseki, J. 1077
Hottiger, M.O. 865
Hradilek, M. 339
Hrušková-Heidingsfeldová, O. 791
Hui, J. 1265

Illarionov, B. 127
Ilyushik, E. 613
Imamichi, Y. 225
Iozef, R. 41
Irwin, N. 679
Ishigaki, M. 143
Ivanova, S. 705

Jacob, R. 155
Jahn, D. 971
James, R.W. 909
Jayakumar, A. 1173
Jenkins, G.I. 161
Jenne, D.E. 61
Jichlinski, P. 291
Jiménez-Atiénzar, M. 601
Jolois, O. 255
Juliano, L. 699, 1191
Juliano, M.A. 699, 1191
Jung, C. 1043
Junger, E. 569
Junqueira-de-Azevedo, I.L.M. 589

Kadowaki, T. 299
Kagemann, G. 1055
Kaletta, C. 167
Kamerling, J.P. 901
Kang, Y. 1173
Keitel, V. 1065
Kenyon, C.J. 663
Kervio, E. 971
Kessler, R. 895
Kido, H. 177
Kishi, T. 291
Kita, M. 177
Klapper, M. 785
Kleczka, B. 657
Kleinert, H. 1055
Kley, R.A. 61
Klotz, L.-O. 207, 217
Knapp, K. 1307
Knight, M.R. 161
Koch, K.-W. 285
Kochman, M. 1
Köhler, P. 417
Kohmura, K. 299
Koizumi, A. 1077
Kolb, H.-A. 155
Kolmar, H. 1301
Komolov, K.E. 285
Konvalinka, J. 339
Kracht, M. 1287
Krause-Buchholz, U. 407
Krayl, M. 1307
Kremerskothen, J. 671
Kroneck, P.M.H. 999
Krug, H.F. 237
Kubitz, R. 1065
Kubota, H. 1077
Kühlkamp, T. 1065
Kuhn, M. 1055
Kündig, C. 291
Kurakin, A. 247
Kurreck, J. 857

Labeit, S. 61
Lalmanach, G. 401
Lamkemeyer, T. 1087
Lane, W. 931
Lauffer, S. 407
Layer, G. 971
Le Nguyen, D. 1301
Leal, S.S. 1295
Leaver, C.J. 161
Lecaille, F. 401
Leffers, K.-W. 569
Leippe, M. 499
Leisinger, H.-J. 291
Lenarčič, B. 75
Lendzian, F. 1007, 1043
Lepeduš, H. 777
Leukert, N. 429
Lienau, J. 167
Lindberg, R.L.P. 1157
Lindig, V. 857
Liu, X. 11
Ljubešić, N. 777
Longu, S. 25
Lopez, R. 361
Ludwig-Müller, J. 279
Lugli, B. 919
Lührmann, R. 713

Ma, Q.-H. 553
Maccioni, P. 25
Machleidt, W. 85
Majer, P. 339
Major, T. 1307
Mak, P. 801
Maloň, P. 791
Mann, K. 85, 759
Mannervik, B. 41
Marchfelder, A. 1253
Marenah, L. 581
Mareš, M. 941
Markine-Goriaynoff, N. 255
Martins, B.M. 951
Máša, M. 491
Massing, U. 237
Mattsson, Å. 333
McDonald, K. 161
McFarlane, R.J. 613
McInerny, C.J. 613
McKerrow, J.H. 339
Medda, R. 25
Medzihradszky, K.F. 931
Meerschaert, K. 1137
Meh, P. 75
Meinsma, R. 319
Meister, G. 1205
Meng, G. 61
Menke, A. 225
Menzel, A. 523
Merino, V.F. 515
Messerschmidt, A. 951, 999
Metzger, S. 1149
Meyer, R.P. 1157
Meyer, T.F. 481
Meyer, U.A. 1157
Mężyk-Kopeć, R. 801
Mickowska, B. 801
Mikalsen, S.-O. 325
Mion, A. 663
Misselwitz, R. 881
Modesto, J.C.A. 369, 589
Mogk, A. 739, 1115
Moll, D. 623
Montagne, J.-J. 401
Moodley, R. 375
Moreau, T. 391
Morlock, G. 971
Moura-da-Silva, A.M. 369
Mueller, T. 1165
Muenzner, P. 481
Mühlbach, H. 1097
Mukherjee, C. 1023
Mukherjee, S. 1023
Müller, C.R. 61
Müller, G.A. 895
Müller, H.-J. 535
Müller, I.B. 117
Mura, A. 25
Murphy, B.J. 865

Nagano, F. 671
Nagata, K. 1077
Nagy, I. 865
Naim, H.Y. 155
Naitoh, M. 1077
Nakamura, K. 143
Nakamura, Y. 177
Nakatome, K. 1077
Narberhaus, F. 1279
Naujoks, K. 167
Naumann, M. 481
Nazmi, K. 137
Neth, P. 101
Neves-Ferreira, A.G.C. 589
Neveu, J. 931
Ng, T.B. 19
Ngezahayo, A. 155
Nickel, C. 1129
Nierhaus, K.H. 1239
Nieuw Amerongen, A.V. 137
Nieva, C. 463
Nimtz, M. 435
Novoselov, A.V. 441
Nozaki, J. 1077
Nürnberg, P. 61

O'Harte, F.P.M. 679
Oba, Y. 177
Oberle, C. 237
Ocampo, M. 361
Odhav, B. 375
Ohdachi, S.D. 177
Okumura, Y. 177
Oliva, M.L.V. 561, 589
Olivotto, M. 919
Orr, D.F. 581
Osanai, K. 143
Ożyhar, A. 1, 463

Padiglia, A. 25
Paine, T.K. 1023
Paiva, A.C.M. 515
Panichi, D. 383
Parente, A. 307
Patarroyo, M.E. 361
Paul, R.J. 1087
Pavšič, M. 75
Pedersen, J.Z. 25
Peiser, C. 53
Perales, J. 589
Perron, M.J. 111
Pesquero, J.B. 515
Philippov, P.P. 285
Pichová, I. 791
Pierik, A.J. 981
Piette, J. 255
Pinto, M. 361
Placha, L. 339
Plendl, J. 167
Poerio, E. 383
Potempa, J. 801
Pozner, R.G. 369
Pratto, F. 881
Prenzel, N. 845
Prescott, J. 69
Prestwich, G.D. 1137
Prusiner, S.B. 569
Pryce, D.W. 613
Puentes, A. 361
Puerta-Fernández, E. 183
Puzer, L. 699, 1191

Qian, L. 1137

Radi, R. 1129
Rahlfs, S. 33, 41, 1129
Rapp, U.R. 1165
Ravanat, J.-L. 333
Redich, N. 1287
Reimann, H. 61
Reis, M.L. 699
Reisine, T. 931
Resch, K. 1287
Retey, J. 971
Ribeiro Chagas, J. 291
Richter, M. 1043
Riddell, T. 613
Riesner, D. 569, 1149
Ritter, B. 1287
Robubi, A. 1165
Rödel, G. 407
Rodriguez, L. 361

Rodríguez-López, J.N. 351
Roemer, K. 453
Röhm, K.-H. 535
Romero-López, C. 183
Rosas, J. 361
Roth, J. 429
Routier, F.H. 657
Rovida, E. 919
Rulíšek, L. 941

Sadzot-Delvaux, C. 255
Sajid, M. 339
Sakuma, T. 143
Sampaio, C.A.M. 561, 1185
Sampaio, M.U. 561
Santana, L.A. 561
Sawano, Y. 491
Schaffner, W. 865
Schanstra, J.P. 515
Schattner, M. 369
Schechter, N.M. 1173
Schieberle, P. 417
Schilling, O. 1253
Schink, B. 999
Schirmeister, T. 499
Schirmer, H. 41
Schlieker, C. 739, 1115
Schlünzen, F. 1239
Schmidt, M. 725
Schmidt-Schultz, T.H. 767
Schmitt, R. 785
Schmittel, M. 1007
Schmoldt, H.-U. 1301
Schneider, M. 845
Schnorr, O. 1055
Schöbel, K. 407
Schramek, N. 127, 417
Schrevel, J. 401
Schröder, J.M. 61
Schubert, S. 857
Schubert, W.-D. 971
Schultz, M. 767
Schulze, E. 541
Schünemann, V. 1043
Scorilas, A. 471
Selmer, T. 981
Senin, I.I. 285
Shanker, S. 85
Sharma, C.M. 1219
Shaw, C. 581
Shen, H.C. 69
Sherman, W.A. 111
Shore, J.D. 111
Sidarovich, V. 101
Sies, H. 217
Siess, E.A. 1197
Siest, G. 441
Silva Jr., J.A. 515
Siniscalco, G.G. 307
Siwanowicz, L. 85
Skerra, A. 1097
Smith, A.E.F. 95
Snyman, C. 375
Sok, A.J. 1
Sommerhoff, C.P. 1301
Sorg, C. 429
Späth, B. 1253
Spindler, K.-D. 463
Spindler-Barth, M. 463
Stanley, J.R. 1173
Stefe, I. 1191
Stemp, M.J. 753
Stöcker, W. 1087
Stöhr, J. 569
Stuhlmann, D. 217
Suzuki, T. 143

Takahashi, K. 143
Takahashi, M. 143
Takenberg, M. 435
Tanaka, A.S. 1185
Tanokura, M. 491
Tatzelt, J. 1149
Teber, I. 671
Teeken, A. 137
Tegude, H. 503
Teifel, M. 167
Tessarz, P. 739
Than, M.E. 759
Thiel, G. 873
Thiele, H. 61
Thomadaki, H. 471
Thomas, M. 705
Tian, B. 553
Tilley, W.D. 69
Toga, H. 143
Tokalov, S.V. 279
Toneff, T. 931
Torquato, R.J.S. 1185
Townley, H.E. 161
Tran, T. 111
Trautwein, A.X. 1043
Trujillo, M. 1129
Tsiapalis, C.M. 471
Tsibulsky, V. 441
Tsukuba, T. 299
Tudela, J. 351
Turk, B. 705, 941, 1191
Turk, D. 1191
Turk, V. 75, 705

Uemura, D. 177
Ullrich, A. 845

Vaganova, S.A. 285
Valbuena, J. 361
Valero, E. 689
van 't Hof, W. 137
Van Damme, J. 1137
van der Kraan, M.I.A. 137
Van Kuilenburg, A.B.P. 319
van Remoortere, A. 901
Vandekerckhove, J. 1137
Vanderplasschen, A. 255
Vanloo, B. 1137
Varón, R. 351, 689
Vasiljeva, O. 941
Veerman, E.C.I. 137
Vera, R. 361
Vercesi, J. 699
Vicik, R. 499
Vieira, D.F. 561
Vinson, C. 873
Visvikis, S. 441
Vliegenthart, J.F.G. 901
Voelker, D.R. 143
Vogel, A. 1253
Vogel, J. 1219
von Janowsky, B. 1307
von Montfort, C. 217
Vondrášek, J. 339
Voos, W. 1307
Vopel, S. 1097
Vorgerd, M. 61
Voß, B. 643

Waeber, G. 909
Wagner, R. 523
Waidmann, O. 225
Wakeman, J.A. 613
Waldminghaus, T. 1279
Walerych, D. 613
Walter, R.D. 117
Walter, S. 633
Wang, Z.-M. 1173
Weibezahn, J. 739
Weiergräber, O.H. 285
Weinmann, N. 1149
Weis, J. 61
Welfle, H. 881
Welfle, K. 881
Welker, P. 53
Werk, D. 857
Werner, A. 535
Wessler, S. 481
Weyhermüller, T. 1023
Widmann, C. 909
Wieczorek, E. 463
Wiedenmann, J. 463
Wieghardt, K. 1023
Will, C.L. 713
Wille, H. 569
Willkomm, D.K. 1273
Wilson, D.N. 1239
Winklhofer, K.F. 1149
Winzen, R. 1287
Witt, C. 53
Witt, C.C. 61
Witt, D.R. 319
Wittinghofer, A. 643
Wrenger, C. 553
Wurm, R. 523

Yakushkin, V.V. 441
Yamamoto, K. 299
Yasuda, Y. 299
Yiallouros, I. 1087
Yonath, A. 833
Yoshikuni, M. 177
Yoshinaga, T. 1077

Zani, M.-L. 391
Zarivach, R. 833
Zeichhardt, H. 857
Zeis, B. 1087
Zentgraf, H. 1115
Zinchenko, D.V. 285
Zipse, H. 1007
Zorn, H. 435
Zschörnig, O. 909
Zwick-Wallasch, E. 845

Biol. Chem., Vol. 386, pp. 1341–1357, December 2005 · Copyright © by Walter de Gruyter · Berlin · New York. DOI 10.1515/BC.2005.155

# Subject Index


**AAA+ protein**

Schlieker, C., H. Zentgraf, P. Dersch and A. Mogk
ClpV, a unique Hsp100/Clp member of pathogenic proteobacteria *386*, 1115–1127

von Janowsky, B., K. Knapp, T. Major, M. Krayl, B. Guiard and W. Voos
Structural properties of substrate proteins determine their proteolysis by the mitochondrial AAA+ protease Pim1 *386*, 1307–1317

Weibezahn, J., C. Schlieker, P. Tessarz, A. Mogk and B. Bukau
Novel insights into the mechanism of chaperone-assisted protein disaggregation *386*, 739–744

**ABC transporter**

Donner, M.G., U. Warskulat, N. Saha and D. Häussinger
Enhanced expression of basolateral multidrug resistance protein isoforms Mrp3 and Mrp5 in rat liver by LPS *385*, 331–339

**Acetylene hydratase**

Boll, M., B. Schink, A. Messerschmidt and P.M.H. Kroneck
Novel bacterial molybdenum and tungsten enzymes: three-dimensional structure, spectroscopy, and reaction mechanism *386*, 999–1006

**Aconitase**

Leal, S.S. and C.M. Gomes
Linear three-iron centres are unlikely cluster degradation intermediates during unfolding of iron-sulfur proteins *386*, 1295–1300

**Actin**

Stemp, M.J., S. Guha, F.U. Hartl and J.M. Barral
Efficient production of native actin upon translation in a bacterial lysate supplemented with the eukaryotic chaperonin TriC *386*, 753–757

**Adrenodoxin**

Bureik, M., A. Mion, C.J. Kenyon and R. Bernhardt
Inhibition of aldosterone biosynthesis by staurosporine *386*, 663–669

Derouet-Hümbert, E., K. Roemer and M. Bureik
Adrenodoxin (Adx) and CYP11A1 (P450scc) induce apoptosis by the generation of reactive oxygen species in mitochondria *386*, 453–461

**Aggresome**

Kühlkamp, T., V. Keitel, A. Helmer, D. Häussinger and R. Kubitz
Degradation of the sodium taurocholate cotransporting polypeptide (NTCP) by the ubiquitin-proteasome-system *386*, 1065–1074

**Alkylphosphocholine**

Oberle, C., U. Massing and H.F. Krug
On the mechanism of alkylphosphocholine (APC)-induced apoptosis in tumour cells *386*, 237–245

**α2-Macroglobulin**

Yasuda, Y., K. Kohmura, T. Kadowaki, T. Tsukuba and K. Yamamoto
A new selective substrate for cathepsin E based on the cleavage site sequence of α2-macroglobulin *386*, 299–305

**Amine oxidase, copper/quinone-containing**

Longu, S., A. Padiglia, J.Z. Pedersen, A. Finazzi Agrò, A. Mura, P. Maccioni, G. Floris and R. Medda
Nitric oxide covalently labels a 6-hydroxydopa-derived free radical intermediate in the catalytic cycle of copper/quinone-containing amine oxidase from lentil seedlings *386*, 25–31

**Amyloid precursor protein (APP)**

Teber, I., F. Nagano, J. Kremerskothen, K. Bilbilis, B. Goud and A. Barnekow
Rab6 interacts with the mint3 adaptor protein *386*, 671–677

**Androgen receptor**

Shen, H.C., G. Buchanan, L.M. Butler, J. Prescott, M. Henderson, W.D. Tilley and G.A. Coetzee
GRIP1 mediates the interaction between the amino- and carboxyl-termini of the androgen receptor *386*, 69–74

**Androstane receptor**

Burk, O., K.A. Arnold, A. Geick, H. Tegude and M. Eichelbaum
A role for constitutive androstane receptor in the regulation of human intestinal *MDR1* expression *386*, 503–513

**Angiogenesis**

Cramer, M., I. Nagy, B.J. Murphy, M. Gassmann, M.O. Hottiger, O. Georgiev and W. Schaffner
NF-κB contributes to transcription of placenta growth factor and interacts with metal responsive transcription factor-1 in hypoxic human cells *386*, 865–872

Lienau, J., C. Kaletta, M. Teifel, K. Naujoks, K. Bhoola and J. Plendl
Morphology and transfection study of human microvascular endothelial cell angiogenesis: an *in vitro* three-dimensional model *386*, 167–175

**Antibiotic**

Wilson, D.N., J.M. Harms, K.H. Nierhaus, F. Schlünzen and P. Fucini
Species-specific antibiotic-ribosome interactions: implications for drug development *386*, 1239–1252

**Antibody, monoclonal**

Carvalho de Souza, A., A. van Remoortere, C.H. Hokke, A.M. Deelder, J.F.G. Vliegenthart and J.P. Kamerling
Determination of the specificity of monoclonal antibodies against *Schistosoma mansoni* CAA glycoprotein antigen using neoglycoconjugate variants *386*, 901–908

**Anticalin**

Vopel, S., H. Mühlbach and A. Skerra
Rational engineering of a fluorescein-binding anticalin for improved ligand affinity *386*, 1097–1104

**Antifungal protein**

Chu, K.T. and T.B. Ng
Purification and characterization of a chitinase-like antifungal protein from black turtle bean with stimulatory effect on nitric oxide production by macrophages *386*, 19–24

van der Kraan, M.I.A., K. Nazmi, A. Teeken, J. Groenink, W. van 't Hof, E.C.I. Veerman, J.G.M. Bolscher and A.V. Nieuw Amerongen
Lactoferrampin, an antimicrobial peptide of bovine lactoferrin, exerts its candidacidal activity by a cluster of positively charged residues at the C-terminus in combination with a helix-facilitating N-terminal part *336*, 137–142

**Antioxidant**

Nickel, C., M. Trujillo, S. Rahlfs, M. Deponte, R. Radi and K. Becker
*Plasmodium falciparum* 2-Cys peroxiredoxin reacts with plasmoredoxin and peroxynitrite *386*, 1129–1136

**Apolipoprotein**

Dergunov, A.D., A.V. Novoselov, S. Visvikis, G. Siest, V.V. Yakushkin and V. Tsibulsky
The composition, structural properties and binding of very low density lipoproteins and low density lipoproteins to the LDL receptor in normo- and hypertriglyceridemia: relation to the apolipoprotein E phenotype *386*, 441–452

**Apoptosis**

Derouet-Hümbert, E., K. Roemer and M. Bureik
Adrenodoxin (Adx) and CYP11A1 (P450scc) induce apoptosis by the generation of reactive oxygen species in mitochondria *386*, 453–461

Gregorc, U., S. Ivanova, M. Thomas, V. Turk, L. Banks and B. Turk
hDLG/SAP97, a member of the MAGUK protein family, is a novel caspase target during cell-cell detachment in apoptosis *386*, 705–710

Ludwig-Müller, J., S.V. Tokalov, A. Franz and H.O. Gutzeit
Quercetin metabolism in vital and apoptotic human leukaemia cells *386*, 279–283

Oberle, C., U. Massing and H.F. Krug
On the mechanism of alkylphosphocholine (APC)-induced apoptosis in tumour cells *386*, 237–245

Schattner, M., M. Fritzen, J. de Souza Ventura, J.C.A. Modesto, R.G. Pozner, A.M. Moura-da-Silva and A.M. Chudzinski-Tavassi
The snake venom metalloproteases berythractivase and jararhagin activate endothelial cells *386*, 369–374

Townley, H.E., K. McDonald, G.I. Jenkins, M.R. Knight and C.J. Leaver
Ceramides induce programmed cell death in *Arabidopsis* cells in a calcium-dependent manner *386*, 161–166

**Aptamer**

Romero-López, C., A. Barroso-delJesus, E. Puerta-Fernández and A. Berzal-Herranz
Interfering with hepatitis C virus IRES activity using RNA molecules identified by a novel *in vitro* selection method *386*, 183–190

**Arginase**

Müller, I.B., R.D. Walter and C. Wrenger
Structural metal dependency of the arginase from the human malaria parasite *Plasmodium falciparum* *386*, 117–126

**Argonaute protein**

Chen, P.Y. and G. Meister
microRNA-guided posttranscriptional gene regulation *386*, 1205–1218

**Asparaginase**

Werner, A., K.-H. Röhm and H.-J. Müller
Mapping of B-cell epitopes in *E. coli* asparaginase II, an enzyme used in leukemia treatment *386*, 535–540

**Asparagine synthetase**

Al Sarraj, J., C. Vinson and G. Thiel
Regulation of asparagine synthetase gene transcription by the basic region leucine zipper transcription factors ATF5 and CHOP *386*, 873–879

**ATPase**

Eberharter, A., R. Ferreira and P. Becker
Dynamic chromatin: concerted nucleosome remodelling and acetylation *386*, 745–751

Schlieker, C., H. Zentgraf, P. Dersch and A. Mogk
ClpV, a unique Hsp100/Clp member of pathogenic proteobacteria *386*, 1115–1127

**Autocatalysis**

Dostál, J., H. Dlouhá, P. Maloň, I. Pichová and O. Hrušková-Heidingsfeldová
The precursor of secreted aspartic proteinase Sapp1p from *Candida parapsilosis* can be activated both autocatalytically and by a membrane-bound processing proteinase *386*, 791–799

Fuentes, M.-E., R. Varón, M. García-Moreno and E. Valero
Kinetics of autocatalytic zymogen activation measured by a coupled reaction: pepsinogen autoactivation *386*, 689–698

**Aziridine**

Gelhaus, C., R. Vicik, T. Schirmeister and M. Leippe
Blocking effect of a biotinylated protease inhibitor on the egress of *Plasmodium falciparum* merozoites from infected red blood cells *386*, 499–502

**Benzoyl-CoA reductase**

Boll, M. and G. Fuchs
Unusual reactions involved in anaerobic metabolism of phenolic compounds *386*, 989–997

**Benzylsuccinate synthase**

Selmer, T., A.J. Pierik and J. Heider
New glycyl radical enzymes catalysing key metabolic steps in anaerobic bacteria *386*, 981–988

**Berythractivase**

Schattner, M., M. Fritzen, J. de Souza Ventura, J.C.A. Modesto, R.G. Pozner, A.M. Moura-da-Silva and A.M. Chudzinski-Tavassi
The snake venom metalloproteases berythractivase and jararhagin activate endothelial cells *386*, 369–374

**Betalain**

Gandía-Herrero, F., M. Jiménez-Atiénzar, J. Cabanes, F. García-Carmona and J. Escribano
Evidence for a common regulation in the activation of a polyphenol oxidase by trypsin and sodium dodecyl sulfate *386*, 601–607

**β-Secretase**

Hook, V., T. Toneff, M. Bogyo, D. Greenbaum, K.F. Medzihradszky, J. Neveu, W. Lane, G. Hook and T. Reisine
Inhibition of cathepsin B reduces β-amyloid production in regulated secretory vesicles of neuronal chromaffin cells: evidence for cathepsin B as a candidate β-secretase of Alzheimer's disease *386*, 931–940

**Blarinasin**

Kita, M., Y. Okumura, S.D. Ohdachi, Y. Oba, M. Yoshikuni, Y. Nakamura, H. Kido and D. Uemura
Purification and characterisation of blarinasin, a new tissue kallikrein-like protease from the short-tailed shrew *Blarina brevicauda*: comparative studies with blarina toxin *386*, 177–182

**Bone morphogenetic protein (BMP)**

Schmidt-Schultz, T.H. and M. Schultz
Intact growth factors are conserved in the extracellular matrix of ancient human bone and teeth: a storehouse for the study of human evolution in health and disease *386*, 767–776

**Bradykinin**

Puzer, L., J. Vercesi, M.F.M. Alves, N.M.T. Barros, M.S. Araujo, M.A. Juliano, M.L. Reis, L. Juliano and A.K. Carmona
A possible alternative mechanism of kinin generation *in vivo* by cathepsin L *386*, 699–704

**Bradykinin receptor**

Merino, V.F., J.A. Silva Jr., R.C. Araújo, M.C.W. Avellar, J.-L. Bascands, J.P. Schanstra, A.C.M. Paiva, M. Bader and J.B. Pesquero
Molecular structure and transcriptional regulation by nuclear factor-κB of the mouse kinin $B_1$ receptor gene *386*, 515–522

Moodley, R., C. Snyman, B. Odhav and K.D. Bhoola
Visualisation of transforming growth factor-β1, tissue kallikrein, and kinin and transforming growth factor-β receptors on human clear-cell renal carcinoma cells *386*, 375–382

**Bromelain**

Sawano, Y., K.-i. Hatano and M. Tanokura
Susceptibility of the interchain peptide of a bromelain inhibitor precursor to the target proteases bromelain, chymotrypsin, and trypsin *386*, 491–498

**Calpain**

Friedrich, P. and Z. Bozóky
Digestive versus regulatory proteases: on calpain action *in vivo* *386*, 609–612

Ghosh, M., S. Shanker, I. Siwanowicz, K. Mann, W. Machleidt and T.A. Holak
Proteolysis of insulin-like growth factor binding proteins (IGFBPs) by calpain *386*, 85–93

Jenne, D.E., R.A. Kley, M. Vorgerd, J.M. Schröder, J. Weis, H. Reimann, B. Albrecht, P. Nürnberg, H. Thiele, C.R. Müller, G. Meng, C.C. Witt and S. Labeit
Limb girdle muscular dystrophy in a sibling pair with a homozygous Ser606Leu mutation in the alternatively spliced IS2 region of calpain 3 *386*, 61–67

**Calpastatin**

Friedrich, P. and Z. Bozóky
Digestive versus regulatory proteases: on calpain action *in vivo* *386*, 609–612

**Calycin**

Sok, A.J., K. Czajewska, A. Ożyhar and M. Kochman
The Structure of the juvenile hormone binding protein gene from *Galleria mellonella* *386*, 1–10

**Carboxylesterase**

Zorn, H., H. Bouws, M. Takenberg, M. Nimtz, R. Getzlaff, D.E. Breithaupt and R.G. Berger
An extra-cellular carboxylesterase from the basidiomycete *Pleurotus sapidus* hydrolyses xanthophyll ester *386*, 435–440

**Carboxymonopeptidase**

Puzer, L., S.S. Cotrin, M.H.S. Cezari, I.Y. Hirata, M.A. Juliano, I. Stefe, D. Turk, B. Turk, L. Juliano and A.K. Carmona
Recombinant human cathepsin X is a carboxymonopeptidase only: a comparison with cathepsins B and L *386*, 1191–1195

**Carotenoid**

Zorn, H., H. Bouws, M. Takenberg, M. Nimtz, R. Getzlaff, D.E. Breithaupt and R.G. Berger
An extra-cellular carboxylesterase from the basidiomycete *Pleurotus sapidus* hydrolyses xanthophyll ester *386*, 435–440

**Caspase**

Gregorc, U., S. Ivanova, M. Thomas, V. Turk, L. Banks and B. Turk
hDLG/SAP97, a member of the MAGUK protein family, is a novel caspase target during cell-cell detachment in apoptosis *386*, 705–710

Oberle, C., U. Massing and H.F. Krug
On the mechanism of alkylphosphocholine (APC)-induced apoptosis in tumour cells *386*, 237–245

**Cathepsin**

Araújo, A.P.U., D. Hansen, D.F. Vieira, C. de Oliveira, L.A. Santana, L.M. Beltramini, C.A.M. Sampaio, M.U. Sampaio and M.L.V. Oliva
Kunitz-type *Bauhinia bauhinioides* inhibitors devoid of disulfide bridges: isolation of the cDNAs, heterologous expression and structural studies *386*, 561–568

Caffrey, C.R., L. Placha, C. Barinka, M. Hradilek, J. Dostál, M. Sajid, J.H. McKerrow, P. Majer, J. Konvalinka and J. Vondrášek
Homology modeling and SAR analysis of *Schistosoma japonicum* cathepsin D (SjCD) with statin inhibitors identify a unique active site steric barrier with potential for the design of specific inhibitors *386*, 339–349

Florent, I., F. Lecaille, J.-J. Montagne, F. Gauthier, J. Schrevel and G. Lalmanach
Labelling of four distinct trophozoite falcipains of *Plasmodium falciparum* by a cystatin-derived probe *386*, 401–406

Hook, V., T. Toneff, M. Bogyo, D. Greenbaum, K.F. Medzihradszky, J. Neveu, W. Lane, G. Hook and T. Reisine
Inhibition of cathepsin B reduces β-amyloid production in regulated secretory vesicles of neuronal chromaffin cells: evidence for cathepsin B as a candidate β-secretase of Alzheimer's disease *386*, 931–940

Horn, M., L. Dolečková-Marešová, L. Rulíšek, M. Máša, O. Vasiljeva, B. Turk, T. Gan-Erdene, M. Baudyš and M. Mareš
Activation processing of cathepsin H impairs recognition by its propeptide *386*, 941–947

Meh, P., M. Pavšič, V. Turk, A. Baici and B. Lenarčič
Dual concentration-dependent activity of thyroglobulin type-1 domain of testican: specific inhibitor and substrate of cathepsin L *386*, 75–83

Mężyk-Kopeć, R., M. Bzowska, M. Bzowska, B. Mickowska, P. Mak, J. Potempa and J. Bereta
Effects of elastase and cathepsin G on the levels of membrane and soluble TNFα *386*, 801–811

Puzer, L., J. Vercesi, M.F.M. Alves, N.M.T. Barros, M.S. Araujo, M.A. Juliano, M.L. Reis, L. Juliano and A.K. Carmona
A possible alternative mechanism of kinin generation *in vivo* by cathepsin L *386*, 699–704

Puzer, L., S.S. Cotrin, M.H.S. Cezari, I.Y. Hirata, M.A. Juliano, I. Stefe, D. Turk, B. Turk, L. Juliano and A.K. Carmona
Recombinant human cathepsin X is a carboxymonopeptidase only: a comparison with cathepsins B and L *386*, 1191–1195

Yasuda, Y., K. Kohmura, T. Kadowaki, T. Tsukuba and K. Yamamoto
A new selective substrate for cathepsin E based on the cleavage site sequence of α2-macroglobulin *386*, 299–305

**Cell cycle**

Ilyushik, E., D.W. Pryce, D. Walerych, T. Riddell, J.A. Wakeman, C.J. McInerny and R.J. McFarlane
Psc3 cohesin of *Schizosaccharomyces pombe*: cell cycle analysis and identification of three distinct isoforms *386*, 613–621

**Cellular organization**

Kurakin, A.
Self-organization versus Watchmaker: stochastic dynamics of cellular organization *386*, 247–254

**Ceramide**

Townley, H.E., K. McDonald, G.I. Jenkins, M.R. Knight and C.J. Leaver
Ceramides induce programmed cell death in *Arabidopsis* cells in a calcium-dependent manner *386*, 161–166

**Chaperone**

Ganea, E. and J.J. Harding
Trehalose and 6-aminohexanoic acid stabilize and renature glucose-6-phosphate dehydrogenase inactivated by glycation and by guanidinium hydrochloride *386*, 269–278

Schlieker, C., H. Zentgraf, P. Dersch and A. Mogk
ClpV, a unique Hsp100/Clp member of pathogenic proteobacteria *386*, 1115–1127

Stemp, M.J., S. Guha, F.U. Hartl and J.M. Barral
Efficient production of native actin upon translation in a bacterial lysate supplemented with the eukaryotic chaperonin TriC *386*, 753–757

Weibezahn, J., C. Schlieker, P. Tessarz, A. Mogk and B. Bukau
Novel insights into the mechanism of chaperone-assisted protein disaggregation *386*, 739–744

**Cholesterol**

Dobreva, I., O. Zschörnig, G. Waeber, R.W. James and C. Widmann
Cholesterol is the major component of native lipoproteins activating the p38 mitogen-activated protein kinases *386*, 909–918

**Chromatin**

Eberharter, A., R. Ferreira and P. Becker
Dynamic chromatin: concerted nucleosome remodelling and acetylation *386*, 745–751

Happel, N., E. Schulze and D. Doenecke
Characterisation of human histone H1x *386*, 541–551

**Chronic obstructive pulmonary disease (COPD)**

Groneberg, D.A., C. Peiser, P.R. Eynott, P. Welker, R. Erbes, C. Witt, K.F. Chung and A. Fischer
Transcriptional down-regulation of neurotrophin-3 in chronic obstructive pulmonary disease *386*, 53–59

**Chymotrypsin**

Hejgaard, J.
Inhibitory plant serpins with a sequence of three glutamine residues in the reactive center *386*, 1319–1323

Sawano, Y., K.-i. Hatano and M. Tanokura
Susceptibility of the interchain peptide of a bromelain inhibitor precursor to the target proteases bromelain, chymotrypsin, and trypsin *386*, 491–498

**Cinnamoyl-CoA reductase**

Ma, Q.-H. and B. Tian
Biochemical characterization of a cinnamoyl-CoA reductase from wheat *386*, 553–560

**Circulating anodic antigen (CAA)**

Carvalho de Souza, A., A. van Remoortere, C.H. Hokke, A.M. Deelder, J.F.G. Vliegenthart and J.P. Kamerling
Determination of the specificity of monoclonal antibodies against *Schistosoma mansoni* CAA glycoprotein antigen using neoglycoconjugate variants *386*, 901–908

**Cohesin**

Ilyushik, E., D.W. Pryce, D. Walerych, T. Riddell, J.A. Wakeman, C.J. McInerny and R.J. McFarlane
Psc3 cohesin of *Schizosaccharomyces pombe*: cell cycle analysis and identification of three distinct isoforms *386*, 613–621

**Collagen**

Lienau, J., C. Kaletta, M. Teifel, K. Naujoks, K. Bhoola and J. Plendl
Morphology and transfection study of human microvascular endothelial cell angiogenesis: an *in vitro* three-dimensional model *386*, 167–175

Than, M.E., G.P. Bourenkov, S. Henrich, K. Mann and W. Bode
The NC1 dimer of human placental basement membrane collagen IV: does a covalent crosslink exist? *386*, 759–766

**Colony-stimulating factor (CSF)**

Rovida, E., B. Lugli, V. Barbetti, S. Giuntoli, M. Olivotto and P. Dello Sbarba
Focal adhesion kinase is redistributed to focal complexes and mediates cell spreading in macrophages in response to M-CSF *386*, 919–929

**Combinatorial chemistry**

Berkessel, A., M. Dousset, S. Bulat and K. Glaubitz
Combinatorial approaches to functional models for galactose oxidase *386*, 1035–1041

**Connexin**

Abdelmohsen, K., C. von Montfort, D. Stuhlmann, P.A. Gerber, U.K.M. Decking, H. Sies and L.-O. Klotz
Doxorubicin induces EGF receptor-dependent downregulation of gap junctional intercellular communication in rat liver epithelial cells *386*, 217–223

Breidert, S., R. Jacob, A. Ngezahayo, H.-A. Kolb and H.Y. Naim
Trafficking pathways of Cx49-GFP in living mammalian cells *386*, 155–160

Cruciani, V. and S.-O. Mikalsen
The *connexin* gene family in mammals *386*, 325–332

**Copper oxidase**

Berkessel, A., M. Dousset, S. Bulat and K. Glaubitz
Combinatorial approaches to functional models for galactose oxidase *386*, 1035–1041

Chaudhuri, P., K. Wieghardt, T. Weyhermüller, T.K. Paine, S. Mukherjee and C. Mukherjee
Biomimetic metal-radical reactivity: aerial oxidation of alcohols, amines, aminophenols and catechols catalyzed by transition metal complexes *386*, 1023–1033

**Cordycepin**

Thomadaki, H., C.M. Tsiapalis and A. Scorilas
Polyadenylate polymerase modulations in human epithelioid cervix and breast cancer cell lines, treated with etoposide or cordycepin, follow cell cycle rather than apoptosis induction *386*, 471–480

**Coxsackievirus**

Werk, D., S. Schubert, V. Lindig, H.-P. Grunert, H. Zeichhardt, V.A. Erdmann and J. Kurreck
Developing an effective RNA interference strategy against a plus-strand RNA virus: silencing of coxsackievirus B3 and its cognate coxsackievirus-adenovirus receptor *386*, 857–863

**Cruzipain**

Araújo, A.P.U., D. Hansen, D.F. Vieira, C. de Oliveira, L.A. Santana, L.M. Beltramini, C.A.M. Sampaio, M.U. Sampaio and M.L.V. Oliva
Kunitz-type *Bauhinia bauhinioides* inhibitors devoid of disulfide bridges: isolation of the cDNAs, heterologous expression and structural studies *386*, 561–568

**Curcumin**

Wessler, S., P. Muenzner, T.F. Meyer and M. Naumann
The anti-inflammatory compound curcumin inhibits *Neisseria gonorrhoeae*-induced NF-κB signaling, release of pro-inflammatory cytokines/chemokines and attenuates adhesion in late infection *386*, 481–490

**Cysteine**

Galili, G., R. Amir, R. Hoefgen and H. Hesse
Improving the levels of essential amino acids and sulfur metabolites in plants *386*, 817–831

**Cysteine thiolate**

Deponte, M., K. Becker and S. Rahlfs
*Plasmodium falciparum* glutaredoxin-like proteins *386*, 33–40

**Cystine-knot microprotein**

Avrutina, O., H.-U. Schmoldt, D. Gabrijelcic-Geiger, D. Le Nguyen, C.P. Sommerhoff, U. Diederichsen and H. Kolmar
Trypsin inhibition by macrocyclic and open-chain variants of the squash inhibitor MCoTI-II *386*, 1301–1306

**Cytochrome P450**

Bureik, M., A. Mion, C.J. Kenyon and R. Bernhardt
Inhibition of aldosterone biosynthesis by staurosporine *386*, 663–669

Jung, C., V. Schünemann, F. Lendzian, A.X. Trautwein, J. Contzen, M. Galander, L.H. Böttger, M. Richter and A.-L. Barra
Spectroscopic characterization of the iron-oxo intermediate in cytochrome P450 *386*, 1043–1053

Meyer, R.P., R.L.P. Lindberg, F. Hoffmann and U.A. Meyer
Cytosolic persistence of mouse brain CYP1A1 in chronic heme deficiency *386*, 1157–1164

**Cytokine**

Gowrishankar, G., R. Winzen, F. Bollig, B. Ghebremedhin, N. Redich, B. Ritter, K. Resch, M. Kracht and H. Holtmann
Inhibition of mRNA deadenylation and degradation by ultraviolet light *386*, 1287–1293

**Dihydropyrimidine dehydrogenase**

Van Kuilenburg, A.B.P., R. Meinsma, E. Beke, B. Bobba, P. Boffi, G.M. Enns, D.R. Witt and D. Dobritzsch
Identification of three novel mutations in the dihydropyrimidine dehydrogenase gene associated with altered pre-mRNA splicing or protein function *386*, 319–324

**Dipeptidyl peptidase IV**

Irwin, N., V.A. Gault, B.D. Green, B. Greer, P. Harriott, C.J. Bailey, P.R. Flatt and F.P.M. O'Harte
Antidiabetic potential of two novel fatty acid derivatised, N-terminally modified analogues of glucose-dependent insulinotropic polypeptide (GIP): *N*-AcGIP(LysPAL$^{16}$) and *N*-AcGIP(LysPAL$^{37}$) *386*, 679–687

**Disulfide reductase**

Hedderich, R., N. Hamann and M. Bennati
Heterodisulfide reductase from methanogenic archaea: a new catalytic role for an iron-sulfur cluster *386*, 961–970

**Dithiolene**

Boll, M., B. Schink, A. Messerschmidt and P.M.H. Kroneck
Novel bacterial molybdenum and tungsten enzymes: three-dimensional structure, spectroscopy, and reaction mechanism *386*, 999–1006

**DNA damage**

Hofer, T., C. Badouard, E. Bajak, J.-L. Ravanat, Å. Mattsson and I.A. Cotgreave
Hydrogen peroxide causes greater oxidation in cellular RNA than in DNA *386*, 333–337

**Ecdysteroid receptor**

Nieva, C., T. Gwóźdź, J. Dutko-Gwóźdź, J. Wiedenmann, M. Spindler-Barth, E. Wieczorek, J. Dobrucki, D. Duś, V. Henrich, A. Ożyhar and K.-D. Spindler
Ultraspiracle promotes nuclear localization of ecdysteroid receptor in mammalian cells *386*, 463–470

**Elafin**

Guyot, N., M.-L. Zani, P. Berger, S. Dallet-Choisy and T. Moreau
Proteolytic susceptibility of the serine protease inhibitor trappin-2 (pre-elafin): evidence for tryptase-mediated generation of elafin *386*, 391–399

**Elastase**

Mężyk-Kopeć, R., M. Bzowska, M. Bzowska, B. Mickowska, P. Mak, J. Potempa and J. Bereta
Effects of elastase and cathepsin G on the levels of membrane and soluble TNFα *386*, 801–811

**Epidermal growth factor receptor (EGFR)**

Hart, S., O.M. Fischer, N. Prenzel, E. Zwick-Wallasch, M. Schneider, L. Hennighausen and A. Ullrich
GPCR-induced migration of breast carcinoma cells depends on both EGFR signal transactivation and EGFR-independent pathways *386*, 845–855

**Etoposide**

Thomadaki, H., C.M. Tsiapalis and A. Scorilas
Polyadenylate polymerase modulations in human epithelioid cervix and breast cancer cell lines, treated with etoposide or cordycepin, follow cell cycle rather than apoptosis induction *386*, 471–480

**Extracellular signal-regulated kinase (ERK)**

Abdelmohsen, K., C. von Montfort, D. Stuhlmann, P.A. Gerber, U.K.M. Decking, H. Sies and L.-O. Klotz
Doxorubicin induces EGF receptor-dependent downregulation of gap junctional intercellular communication in rat liver epithelial cells *386*, 217–223

Giehl, K.
Oncogenic Ras in tumour progression and metastasis *386*, 193–205

Imamichi, Y., O. Waidmann, R. Hein, P. Eleftheriou, K. Giehl and A. Menke
TGFβ-induced focal complex formation in epithelial cells is mediated by activated ERK and JNK MAP kinases and is independent of Smad4 *386*, 225–236

Robubi, A., T. Mueller, J. Fueller, M. Hekman, U.R. Rapp and T. Dandekar
B-Raf and C-Raf signaling investigated in a simplified model of the mitogenic kinase cascade *386*, 1165–1171

**Ferredoxin**

Leal, S.S. and C.M. Gomes
Linear three-iron centres are unlikely cluster degradation intermediates during unfolding of iron-sulfur proteins *386*, 1295–1300

**Ferredoxin:thioredoxin reductase**

Hedderich, R., N. Hamann and M. Bennati
Heterodisulfide reductase from methanogenic archaea: a new catalytic role for an iron-sulfur cluster *386*, 961–970

**Fluoropyruvate**

Liu, X. and H. Bisswanger
Interaction of thiamin diphosphate with phosphorylated and dephosphorylated mammalian pyruvate dehydrogenase complex *386*, 11–18

**Focal adhesion kinase (FAK)**

Rovida, E., B. Lugli, V. Barbetti, S. Giuntoli, M. Olivotto and P. Dello Sbarba
Focal adhesion kinase is redistributed to focal complexes and mediates cell spreading in macrophages in response to M-CSF *386*, 919–929

**Galactofuranose metabolism**

Bakker, H., B. Kleczka, R. Gerardy-Schahn and F.H. Routier
Identification and partial characterization of two eukaryotic UDP-galactopyranose mutases *386*, 657–661

**Galactose oxidase**

Berkessel, A., M. Dousset, S. Bulat and K. Glaubitz
Combinatorial approaches to functional models for galactose oxidase *386*, 1035–1041

**Gap junction**

Abdelmohsen, K., C. von Montfort, D. Stuhlmann, P.A. Gerber, U.K.M. Decking, H. Sies and L.-O. Klotz
Doxorubicin induces EGF receptor-dependent downregulation of gap junctional intercellular communication in rat liver epithelial cells *386*, 217–223

Cruciani, V. and S.-O. Mikalsen
The *connexin* gene family in mammals *386*, 325–332

**Gene expression**

Al Sarraj, J., C. Vinson and G. Thiel
Regulation of asparagine synthetase gene transcription by the basic region leucine zipper transcription factors ATF5 and CHOP *386*, 873–879

Burk, O., K.A. Arnold, A. Geick, H. Tegude and M. Eichelbaum
A role for constitutive androstane receptor in the regulation of human intestinal *MDR1* expression *386*, 503–513

Chen, P.Y. and G. Meister
microRNA-guided posttranscriptional gene regulation *386*, 1205–1218

Kagemann, G., B. Henrich, M. Kuhn, H. Kleinert and O. Schnorr
Impact of *Mycoplasma hyorhinis* infection on L-arginine metabolism: differential regulation of the human and murine iNOS gene *386*, 1055–1063

Neth, P., M. Arnhold, V. Sidarovich, K.D. Bhoola and E. Fink
Expression of the plasma prekallikrein gene: utilization of multiple transcription start sites and alternative promoter regions *386*, 101–109

Vogel, J. and C.M. Sharma
How to find small noncoding RNAs in bacteria *386*, 1219–1238

**Gene structure**

Neth, P., M. Arnhold, V. Sidarovich, K.D. Bhoola and E. Fink
Expression of the plasma prekallikrein gene: utilization of multiple transcription start sites and alternative promoter regions *386*, 101–109

Sok, A.J., K. Czajewska, A. Ożyhar and M. Kochman
The Structure of the juvenile hormone binding protein gene from *Galleria mellonella* *386*, 1–10

**Glucose-dependent insulinotropic polypetide (GIP)**

Irwin, N., V.A. Gault, B.D. Green, B. Greer, P. Harriott, C.J. Bailey, P.R. Flatt and F.P.M. O'Harte
Antidiabetic potential of two novel fatty acid derivatised, N-terminally modified analogues of glucose-dependent insulinotropic polypeptide (GIP): *N*-AcGIP(LysPAL$^{16}$) and *N*-AcGIP(LysPAL$^{37}$) *386*, 679–687

**Glucose-6-phosphate dehydrogenase**

Ganea, E. and J.J. Harding
Trehalose and 6-aminohexanoic acid stabilize and renature glucose-6-phosphate dehydrogenase inactivated by glycation and by guanidinium hydrochloride *386*, 269–278

**Glutaredoxin**

Deponte, M., K. Becker and S. Rahlfs
*Plasmodium falciparum* glutaredoxin-like proteins *386*, 33–40

**Glycogen**

Dumpitak, C., M. Beekes, N. Weinmann, S. Metzger, K.F. Winklhofer, J. Tatzelt and D. Riesner
The polysaccharide scaffold of PrP 27–30 is a common compound of natural prions and consists of α-linked polyglucose *386*, 1149–1155

**Glycyl radical**

Selmer, T., A.J. Pierik and J. Heider
New glycyl radical enzymes catalysing key metabolic steps in anaerobic bacteria *386*, 981–988

**Glyoxalase**

Akoachere, M., R. Iozef, S. Rahlfs, M. Deponte, B. Mannervik, D.J. Creighton, H. Schirmer and K. Becker
Characterization of the glyoxalases of the malarial parasite *Plasmodium falciparum* and comparison with their human counterparts *386*, 41–52

**G protein-coupled receptor (GPCR)**

Hart, S., O.M. Fischer, N. Prenzel, E. Zwick-Wallasch, M. Schneider, L. Hennighausen and A. Ullrich
GPCR-induced migration of breast carcinoma cells depends on both EGFR signal transactivation and EGFR-independent pathways *386*, 845–855

**GTPase**

Eberth, A., R. Dvorsky, C.F.W. Becker, A. Beste, R.S. Goody and M.R. Ahmadian
Monitoring the real-time kinetics of the hydrolysis reaction of guanine nucleotide-binding proteins *386*, 1105–1114

Farkasovsky, M., P. Herter, B. Voß and A. Wittinghofer
Nucleotide binding and filament assembly of recombinant yeast septin complexes *386*, 643–656

Giehl, K.
Oncogenic Ras in tumour progression and metastasis *386*, 193–205

Imamichi, Y., O. Waidmann, R. Hein, P. Eleftheriou, K. Giehl and A. Menke
TGFβ-induced focal complex formation in epithelial cells is mediated by activated ERK and JNK MAP kinases and is independent of Smad4 *386*, 225–236

Osanai, K., K. Takahashi, K. Nakamura, M. Takahashi, M. Ishigaki, T. Sakuma, H. Toga, T. Suzuki and D.R. Voelker
Expression and characterization of Rab38, a new member of the Rab small G protein family *386*, 143–153

Teber, I., F. Nagano, J. Kremerskothen, K. Bilbilis, B. Goud and A. Barnekow
Rab6 interacts with the mint3 adaptor protein *386*, 671–677

**GTP hydrolysis**

Eberth, A., R. Dvorsky, C.F.W. Becker, A. Beste, R.S. Goody and M.R. Ahmadian
Monitoring the real-time kinetics of the hydrolysis reaction of guanine nucleotide-binding proteins *386*, 1105–1114

**Guanylate kinase, membrane-associated (MAGUK)**

Gregorc, U., S. Ivanova, M. Thomas, V. Turk, L. Banks and B. Turk
hDLG/SAP97, a member of the MAGUK protein family, is a novel caspase target during cell-cell detachment in apoptosis *386*, 705–710

**Hapten**

Vopel, S., H. Mühlbach and A. Skerra
Rational engineering of a fluorescein-binding anticalin for improved ligand affinity *386*, 1097–1104

**Heat shock**

Waldminghaus, T., A. Fippinger, J. Alfsmann and F. Narberhaus
RNA thermometers are common in α- and γ-proteobacteria *386*, 1279–1286

**Hemoglobin**

Lamkemeyer, T., R.J. Paul, W. Stöcker, I. Yiallouros and B. Zeis
Macromolecular isoforms of *Daphnia magna* haemoglobin *386*, 1087–1096

**Hepatitis C virus**

Romero-López, C., A. Barroso-delJesus, E. Puerta-Fernández and A. Berzal-Herranz
Interfering with hepatitis C virus IRES activity using RNA molecules identified by a novel *in vitro* selection method *386*, 183–190

**Histone**

Eberharter, A., R. Ferreira and P. Becker
Dynamic chromatin: concerted nucleosome remodelling and acetylation *386*, 745–751

Happel, N., E. Schulze and D. Doenecke
Characterisation of human histone H1x *386*, 541–551

**Hydrogen peroxide**

Hofer, T., C. Badouard, E. Bajak, J.-L. Ravanat, Å. Mattsson and I.A. Cotgreave
Hydrogen peroxide causes greater oxidation in cellular RNA than in DNA *386*, 333–337

**Hypothyroidism**

Döring, F., R. Schmitt, W.M. Bernhardt, M. Klapper, S. Bachmann, H. Daniel and D.A. Groneberg
Hypothyroidism induces expression of the peptide transporter PEPT2 *386*, 785–790

**Hypoxia**

Cramer, M., I. Nagy, B.J. Murphy, M. Gassmann, M.O. Hottiger, O. Georgiev and W. Schaffner
NF-κB contributes to transcription of placenta growth factor and interacts with metal responsive transcription factor-1 in hypoxic human cells *386*, 865–872

**Insularinase**

Modesto, J.C.A., I.L.M. Junqueira-de-Azevedo, A.G.C. Neves-Ferreira, M. Fritzen, M.L.V. Oliva, P.L. Ho, J. Perales and A.M. Chudzinski-Tavassi
Insularinase A, a prothrombin activator from *Bothrops insularis* venom, is a metalloprotease derived from a gene encoding protease and disintegrin domains *386*, 589–600

**Insulin**

Yoshinaga, Y., K. Nakatome, J. Nozaki, M. Naitoh, J. Hoseki, H. Kubota, K. Nagata and A. Koizumi
Proinsulin lacking the A7-B7 disulfide bond, $Ins2^{Akita}$, tends to aggregate due to the exposed hydrophobic surface *386*, 1077–1085

**Insulin-like growth factor (IGF)**

Schmidt-Schultz, T.H. and M. Schultz
Intact growth factors are conserved in the extracellular matrix of ancient human bone and teeth: a storehouse for the study of human evolution in health and disease *386*, 767–776

**Insulin-like growth factor binding protein (IGFBP)**

Ghosh, M., S. Shanker, I. Siwanowicz, K. Mann, W. Machleidt and T.A. Holak
Proteolysis of insulin-like growth factor binding proteins (IGFBPs) by calpain *386*, 85–93

**Insulin-releasing peptide**

Abdel-Wahab, Y.H.A., L. Marenah, D.F. Orr, C. Shaw and P.R. Flatt
Isolation and structural characterisation of a novel 13–amino acid insulin-releasing peptide from the skin secretion of *Agalychnis calcarifer* *386*, 581–587

Irwin, N., V.A. Gault, B.D. Green, B. Greer, P. Harriott, C.J. Bailey, P.R. Flatt and F.P.M. O'Harte
Antidiabetic potential of two novel fatty acid derivatised, N-terminally modified analogues of glucose-dependent insulinotropic polypeptide (GIP): *N*-AcGIP(LysPAL$^{16}$) and *N*-AcGIP(LysPAL$^{37}$) *386*, 679–687

**Iron-sulfur cluster**

Buckel, W., B.M. Martins, A. Messerschmidt and B.T. Golding
Radical-mediated dehydration reactions in anaerobic bacteria *386*, 951–959

Hedderich, R., N. Hamann and M. Bennati
Heterodisulfide reductase from methanogenic archaea: a new catalytic role for an iron-sulfur cluster *386*, 961–970

Layer, G., E. Kervio, G. Morlock, D.W. Heinz, D. Jahn, J. Retey and W.-D. Schubert
Structural and functional comparison of HemN to other radical SAM enzymes *386*, 971–980

Leal, S.S. and C.M. Gomes
Linear three-iron centres are unlikely cluster degradation intermediates during unfolding of iron-sulfur proteins *386*, 1295–1300

**Jararhagin**

Schattner, M., M. Fritzen, J. de Souza Ventura, J.C.A. Modesto, R.G. Pozner, A.M. Moura-da-Silva and A.M. Chudzinski-Tavassi
The snake venom metalloproteases berythractivase and jararhagin activate endothelial cells *386*, 369–374

**Juvenile hormone binding protein gene**

Sok, A.J., K. Czajewska, A. Ożyhar and M. Kochman
The Structure of the juvenile hormone binding protein gene from *Galleria mellonella* *386*, 1–10

**Kallikrein**

Araújo, A.P.U., D. Hansen, D.F. Vieira, C. de Oliveira, L.A. Santana, L.M. Beltramini, C.A.M. Sampaio, M.U. Sampaio and M.L.V. Oliva
Kunitz-type *Bauhinia bauhinioides* inhibitors devoid of disulfide bridges: isolation of the cDNAs, heterologous expression and structural studies *386*, 561–568

Felber, L.M., C.A. Borgoño, S.M. Cloutier, C. Kündig, T. Kishi, J. Ribeiro Chagas, P. Jichlinski, C.M. Gygi, H.-J. Leisinger, E.P. Diamandis and D. Deperthes
Enzymatic profiling of human kallikrein 14 using phage display substrate technology *386*, 291–298

Kita, M., Y. Okumura, S.D. Ohdachi, Y. Oba, M. Yoshikuni, Y. Nakamura, H. Kido and D. Uemura
Purification and characterisation of blarinasin, a new tissue kallikrein-like protease from the short-tailed shrew *Blarina brevicauda*: comparative studies with blarina toxin *386*, 177–182

Moodley, R., C. Snyman, B. Odhav and K.D. Bhoola
Visualisation of transforming growth factor-β1, tissue kallikrein, and kinin and transforming growth factor-β receptors on human clear-cell renal carcinoma cells *386*, 375–382

Neth, P., M. Arnhold, V. Sidarovich, K.D. Bhoola and E. Fink
Expression of the plasma prekallikrein gene: utilization of multiple transcription start sites and alternative promoter regions *386*, 101–109

Schechter, N.M., E.-J. Choi, Z.-M. Wang, Y. Hanakawa, J.R. Stanley, Y. Kang, G.L. Clayman and A. Jayakumar
Inhibition of human kallikreins 5 and 7 by the serine protease inhibitor lympho-epithelial Kazal-type inhibitor (LEKTI) *386*, 1173–1184

**Keratinocyte**

Kagemann, G., B. Henrich, M. Kuhn, H. Kleinert and O. Schnorr
Impact of *Mycoplasma hyorhinis* infection on L-arginine metabolism: differential regulation of the human and murine iNOS gene *386*, 1055–1063

**Kininogen**

Puzer, L., J. Vercesi, M.F.M. Alves, N.M.T. Barros, M.S. Araujo, M.A. Juliano, M.L. Reis, L. Juliano and A.K. Carmona
A possible alternative mechanism of kinin generation *in vivo* by cathepsin L *386*, 699–704

**Lactoferrampin**

van der Kraan, M.I.A., K. Nazmi, A. Teeken, J. Groenink, W. van 't Hof, E.C.I. Veerman, J.G.M. Bolscher and A.V. Nieuw Amerongen
Lactoferrampin, an antimicrobial peptide of bovine lactoferrin, exerts its candidacidal activity by a cluster of positively charged residues at the C-terminus in combination with a helix-facilitating N-terminal part *386*, 137–142

**Lactoferrin**

van der Kraan, M.I.A., K. Nazmi, A. Teeken, J. Groenink, W. van 't Hof, E.C.I. Veerman, J.G.M. Bolscher and A.V. Nieuw Amerongen
Lactoferrampin, an antimicrobial peptide of bovine lactoferrin, exerts its candidacidal activity by a cluster of positively charged residues at the C-terminus in combination with a helix-facilitating N-terminal part *386*, 137–142

**Ligand binding**

Vopel, S., H. Mühlbach and A. Skerra
Rational engineering of a fluorescein-binding anticalin for improved ligand affinity *386*, 1097–1104

**Lignin biosynthesis**

Ma, Q.-H. and B. Tian
Biochemical characterization of a cinnamoyl-CoA reductase from wheat *386*, 553–560

**Limb girdle muscular dystrophy**

Jenne, D.E., R.A. Kley, M. Vorgerd, J.M. Schröder, J. Weis, H. Reimann, B. Albrecht, P. Nürnberg, H. Thiele, C.R. Müller, G. Meng, C.C. Witt and S. Labeit
Limb girdle muscular dystrophy in a sibling pair with a homozygous Ser606Leu mutation in the alternatively spliced IS2 region of calpain 3 *386*, 61–67

**Lipocalin**

Vopel, S., H. Mühlbach and A. Skerra
Rational engineering of a fluorescein-binding anticalin for improved ligand affinity *386*, 1097–1104

**Lipopolysaccharide (LPS)**

Merino, V.F., J.A. Silva Jr., R.C. Araújo, M.C.W. Avellar, J.-L. Bascands, J.P. Schanstra, A.C.M. Paiva, M. Bader and J.B. Pesquero
Molecular structure and transcriptional regulation by nuclear factor-κB of the mouse kinin $B_1$ receptor gene *386*, 515–522

**Littorine mutase**

Layer, G., E. Kervio, G. Morlock, D.W. Heinz, D. Jahn, J. Retey and W.-D. Schubert
Structural and functional comparison of HemN to other radical SAM enzymes *386*, 971–980

**Low density lipoprotein (LDL)**

Dergunov, A.D., A.V. Novoselov, S. Visvikis, G. Siest, V.V. Yakushkin and V. Tsibulsky
The composition, structural properties and binding of very low density lipoproteins and low density lipoproteins to the LDL receptor in normo- and hypertriglyceridemia: relation to the apolipoprotein E phenotype *386*, 441–452

Dobreva, I., O. Zschörnig, G. Waeber, R.W. James and C. Widmann
Cholesterol is the major component of native lipoproteins activating the p38 mitogen-activated protein kinases *386*, 909–918

Desmaret, S., L. Qian, B. Vanloo, K. Meerschaert, J. Van Damme, J. Grooten, J. Vandekerckhove, G.D. Prestwich and J. Gettemans
Lysophosphatidic acid affinity chromatography reveals pyruvate kinase as a specific LPA-binding protein *386*, 1137–1147

**Macrolides**

Wilson, D.N., J.M. Harms, K.H. Nierhaus, F. Schlünzen and P. Fucini
Species-specific antibiotic-ribosome interactions: implications for drug development *386*, 1239–1252

**Malaria**

Florent, I., F. Lecaille, J.-J. Montagne, F. Gauthier, J. Schrevel and G. Lalmanach
Labelling of four distinct trophozoite falcipains of *Plasmodium falciparum* by a cystatin-derived probe *386*, 401–406

Gelhaus, C., R. Vicik, T. Schirmeister and M. Leippe
Blocking effect of a biotinylated protease inhibitor on the egress of *Plasmodium falciparum* merozoites from infected red blood cells *386*, 499–502

Nickel, C., M. Trujillo, S. Rahlfs, M. Deponte, R. Radi and K. Becker
*Plasmodium falciparum* 2-Cys peroxiredoxin reacts with plasmoredoxin and peroxynitrite *386*, 1129–1136

Valbuena, J., R. Vera, A. Puentes, M. Ocampo, J. Garcia, H. Curtidor, R. Lopez, L. Rodriguez, J. Rosas, J. Cortes, M. Forero, M. Pinto and M.E. Patarroyo
*P. falciparum* pro-histoaspartic protease (proHAP) protein peptides bind specifically to erythrocytes and inhibit the invasion process *in vitro* *386*, 361–367

**MAP kinase**

Dobreva, I., O. Zschörnig, G. Waeber, R.W. James and C. Widmann
Cholesterol is the major component of native lipoproteins activating the p38 mitogen-activated protein kinases *386*, 909–918

Imamichi, Y., O. Waidmann, R. Hein, P. Eleftheriou, K. Giehl and A. Menke
TGFβ-induced focal complex formation in epithelial cells is mediated by activated ERK and JNK MAP kinases and is independent of Smad4 *386*, 225–236

Rovida, E., B. Lugli, V. Barbetti, S. Giuntoli, M. Olivotto and P. Dello Sbarba
Focal adhesion kinase is redistributed to focal complexes and mediates cell spreading in macrophages in response to M-CSF *386*, 919–929

**Metabolic engineering**

Galili, G., R. Amir, R. Hoefgen and H. Hesse
Improving the levels of essential amino acids and sulfur metabolites in plants *386*, 817–831

**Metalloenzyme**

Buckel, W., B.M. Martins, A. Messerschmidt and B.T. Golding
Radical-mediated dehydration reactions in anaerobic bacteria *386*, 951–959

Chaudhuri, P., K. Wieghardt, T. Weyhermüller, T.K. Paine, S. Mukherjee and C. Mukherjee
Biomimetic metal-radical reactivity: aerial oxidation of alcohols, amines, aminophenols and catechols catalyzed by transition metal complexes *386*, 1023–1033

Müller, I.B., R.D. Walter and C. Wrenger
Structural metal dependency of the arginase from the human malaria parasite *Plasmodium falciparum* *386*, 117–126

**Metal-responsive transcription factor (MTF-1)**

Cramer, M., I. Nagy, B.J. Murphy, M. Gassmann, M.O. Hottiger, O. Georgiev and W. Schaffner
NF-κB contributes to transcription of placenta growth factor and interacts with metal responsive transcription factor-1 in hypoxic human cells *386*, 865–872

**Metallo-β-lactamase**

Vogel, A., O. Schilling, B. Späth and A. Marchfelder
The tRNase Z family of proteins: physiological functions, substrate specificity and structural properties *386*, 1253–1264

**Methionine**

Galili, G., R. Amir, R. Hoefgen and H. Hesse
Improving the levels of essential amino acids and sulfur metabolites in plants *386*, 817–831

**Methylglyoxal**

Akoachere, M., R. Iozef, S. Rahlfs, M. Deponte, B. Mannervik, D.J. Creighton, H. Schirmer and K. Becker
Characterization of the glyoxalases of the malarial parasite *Plasmodium falciparum* and comparison with their human counterparts *386*, 41–52

**microRNA**

Chen, P.Y. and G. Meister
microRNA-guided posttranscriptional gene regulation *386*, 1205–1218

**Molybdenum enzyme**

Boll, M., B. Schink, A. Messerschmidt and P.M.H. Kroneck
Novel bacterial molybdenum and tungsten enzymes: three-dimensional structure, spectroscopy, and reaction mechanism *386*, 999–1006

**Moonlighting protein**

Kurakin, A
Self-organization versus Watchmaker: stochastic dynamics of cellular organization *386*, 247–254

**mRNA deadenylation**

Gowrishankar, G., R. Winzen, F. Bollig, B. Ghebremedhin, N. Redich, B. Ritter, K. Resch, M. Kracht and H. Holtmann
Inhibition of mRNA deadenylation and degradation by ultraviolet light *386*, 1287–1293

**mRNA splicing**

Hui, J. and A. Bindereif
Alternative pre-mRNA splicing in the human system: unexpected role of repetitive sequences as regulatory elements *386*, 1265–1271

Van Kuilenburg, A.B.P., R. Meinsma, E. Beke, B. Bobba, P. Boffi, G.M. Enns, D.R. Witt and D. Dobritzsch
Identification of three novel mutations in the dihydropyrimidine dehydrogenase gene associated with altered pre-mRNA splicing or protein function *386*, 319–324

Will, C.L. and R. Lührmann
Splicing of a rare class of introns by the U12-dependent spliceosome *386*, 713–724

**Myeloid-related protein (MRP)**

Leukert, N., C. Sorg and J. Roth
Molecular basis of the complex formation between the two calcium-binding proteins S100A8 (MRP8) and S100A9 (MRP14) *386*, 429–434

**NC1 domain**

Than, M.E., G.P. Bourenkov, S. Henrich, K. Mann and W. Bode
The NC1 dimer of human placental basement membrane collagen IV: does a covalent crosslink exist? *386*, 759–766

**Neurotrophin**

Groneberg, D.A., C. Peiser, P.R. Eynott, P. Welker, R. Erbes, C. Witt, K.F. Chung and A. Fischer
Transcriptional down-regulation of neurotrophin-3 in chronic obstructive pulmonary disease *386*, 53–59

**NF-κB**

Cramer, M., I. Nagy, B.J. Murphy, M. Gassmann, M.O. Hottiger, O. Georgiev and W. Schaffner
NF-κB contributes to transcription of placenta growth factor and interacts with metal responsive transcription factor-1 in hypoxic human cells *386*, 865–872

Kagemann, G., B. Henrich, M. Kuhn, H. Kleinert and O. Schnorr
Impact of *Mycoplasma hyorhinis* infection on L-arginine metabolism: differential regulation of the human and murine iNOS gene *386*, 1055–1063

Merino, V.F., J.A. Silva Jr., R.C. Araújo, M.C.W. Avellar, J.-L. Bascands, J.P. Schanstra, A.C.M. Paiva, M. Bader and J.B. Pesquero
Molecular structure and transcriptional regulation by nuclear factor-κB of the mouse kinin $B_1$ receptor gene *386*, 515–522

Wessler, S., P. Muenzner, T.F. Meyer and M. Naumann
The anti-inflammatory compound curcumin inhibits *Neisseria gonorrhoeae*-induced NF-κB signaling, release of pro-inflammatory cytokines/chemokines and attenuates adhesion in late infection *386*, 481–490

**Nitric oxide (NO)**

Chu, K.T. and T.B. Ng
Purification and characterization of a chitinase-like antifungal protein from black turtle bean with stimulatory effect on nitric oxide production by macrophages *386*, 19–24

Kagemann, G., B. Henrich, M. Kuhn, H. Kleinert and O. Schnorr
Impact of *Mycoplasma hyorhinis* infection on L-arginine metabolism: differential regulation of the human and murine iNOS gene *386*, 1055–1063

Longu, S., A. Padiglia, J.Z. Pedersen, A. Finazzi Agrò, A. Mura, P. Maccioni, G. Floris and R. Medda
Nitric oxide covalently labels a 6-hydroxydopa-derived free radical intermediate in the catalytic cycle of copper/quinone-containing amine oxidase from lentil seedlings *386*, 25–31

**N-terminal acetyltransferase**

Dihazi, H., R. Kessler, G.A. Müller and K. Eschrich
Lysine 3 acetylation regulates the phosphorylation of yeast 6-phosphofructo-2-kinase under hypo-osmotic stress *386*, 895–900

**Ornithine**

Müller, I.B., R.D. Walter and C. Wrenger
Structural metal dependency of the arginase from the human malaria parasite *Plasmodium falciparum* *386*, 117–126

**Oxidative stress**

Abdelmohsen, K., C. von Montfort, D. Stuhlmann, P.A. Gerber, U.K.M. Decking, H. Sies and L.-O. Klotz
Doxorubicin induces EGF receptor-dependent downregulation of gap junctional intercellular communication in rat liver epithelial cells *386*, 217–223

Barthel A. and L.-O. Klotz
Phosphoinositide 3-kinase signaling in the cellular response to oxidative stress *386*, 207–216

Hofer, T., C. Badouard, E. Bajak, J.-L. Ravanat, Å. Mattsson and I.A. Cotgreave
Hydrogen peroxide causes greater oxidation in cellular RNA than in DNA *386*, 333–337

**Pepsinogen**

Fuentes, M.-E., R. Varón, M. García-Moreno and E. Valero
Kinetics of autocatalytic zymogen activation measured by a coupled reaction: pepsinogen autoactivation *386*, 689–698

**Peptide bond formation**

Agmon, I., A. Bashan, R. Zarivach and A. Yonath
Symmetry at the active site of the ribosome: structural and functional implications *386*, 833–844

**Peptide transporter 2 (PEPT2)**

Döring, F., R. Schmitt, W.M. Bernhardt, M. Klapper, S. Bachmann, H. Daniel and D.A. Groneberg
Hypothyroidism induces expression of the peptide transporter PEPT2 *386*, 785–790

**Peroxidase**

Fenoll, L.G., F. García-Molina, M.A. Gilabert, R. Varón, P.A. García-Ruiz, J. Tudela, F. García-Cánovas and J.N. Rodríguez-López
Interpretation of the reactivity of peroxidase compound II with phenols and anilines using the Marcus equation *386*, 351–360

**Peroxiredoxin**

Nickel, C., M. Trujillo, S. Rahlfs, M. Deponte, R. Radi and K. Becker
*Plasmodium falciparum* 2-Cys peroxiredoxin reacts with plasmoredoxin and peroxynitrite *386*, 1129–1136

**Peroxynitrite**

Nickel, C., M. Trujillo, S. Rahlfs, M. Deponte, R. Radi and K. Becker
*Plasmodium falciparum* 2-Cys peroxiredoxin reacts with plasmoredoxin and peroxynitrite *386*, 1129–1136

**P-glycoprotein**

Burk, O., K.A. Arnold, A. Geick, H. Tegude and M. Eichelbaum
A role for constitutive androstane receptor in the regulation of human intestinal *MDR1* expression *386*, 503–513

**Phage display**

Felber, L.M., C.A. Borgoño, S.M. Cloutier, C. Kündig, T. Kishi, J. Ribeiro Chagas, P. Jichlinski, C.M. Gygi, H.-J. Leisinger, E.P. Diamandis and D. Deperthes
Enzymatic profiling of human kallikrein 14 using phage display substrate technology *386*, 291–298

Werner, A., K.-H. Röhm and H.-J. Müller
Mapping of B-cell epitopes in *E. coli* asparaginase II, an enzyme used in leukemia treatment *386*, 535–540

**Phenolic compound metabolism (anaerobic)**

Boll, M. and G. Fuchs
Unusual reactions involved in anaerobic metabolism of phenolic compounds *386*, 989–997

**Phenylphosphate carboxylase**

Boll, M. and G. Fuchs
Unusual reactions involved in anaerobic metabolism of phenolic compounds *386*, 989–997

**Phosphatidate phosphohydrolase**

Siess, A.A. and M.M. Hofstetter
Purification of $Mg^{2+}$-dependent phosphatidate phosphohydrolase from rat liver: new steps and aspects *386*, 1197–1201

**6-Phosphofructo-2-kinase**

Dihazi, H., R. Kessler, G.A. Müller and K. Eschrich
Lysine 3 acetylation regulates the phosphorylation of yeast 6-phosphofructo-2-kinase under hypo-osmotic stress *386*, 895–900

**Phosphoinositide 3–kinase**

Barthel A. and L.-O. Klotz
Phosphoinositide 3–kinase signaling in the cellular response to oxidative stress *386*, 207–216

**Phospholipid binding**

Desmaret, S., L. Qian, B. Vanloo, K. Meerschaert, J. Van Damme, J. Grooten, J. Vandekerckhove, G.D. Prestwich and J. Gettemans
Lysophosphatidic acid affinity chromatography reveals pyruvate kinase as a specific LPA-binding protein *386*, 1137–1147

**Picornavirus**

Werk, D., S. Schubert, V. Lindig, H.-P. Grunert, H. Zeichhardt, V.A. Erdmann and J. Kurreck
Developing an effective RNA interference strategy against a plus-strand RNA virus: silencing of coxsackievirus B3 and its cognate coxsackievirus-adenovirus receptor *386*, 857–863

**Plasminogen activator inhibitor**

Sherman, W.A., G.E. Blouse, M.J. Perron, T. Tran, J.D. Shore and A. Gafni
Enthalpy measurement using calorimetry shows a significant difference in potential energy between the active and latent conformations of PAI-1 *386*, 111–116

**Plasmoredoxin**

Nickel, C., M. Trujillo, S. Rahlfs, M. Deponte, R. Radi and K. Becker
*Plasmodium falciparum* 2-Cys peroxiredoxin reacts with plasmoredoxin and peroxynitrite *386*, 1129–1136

**Plastid biosynthesis**

Fulgosi, H., H. Lepeduš, V. Cesar and N. Ljubešić
Differential accumulation of plastid preprotein translocon components during spruce (*Picea abies* L. Karst.) needle development *386*, 777–783

**Polyadenylate polymerase**

Thomadaki, H., C.M. Tsiapalis and A. Scorilas
Polyadenylate polymerase modulations in human epithelioid cervix and breast cancer cell lines, treated with etoposide or cordycepin, follow cell cycle rather than apoptosis induction *386*, 471–480

**Polyglucose**

Dumpitak, C., M. Beekes, N. Weinmann, S. Metzger, K.F. Winklhofer, J. Tatzelt and D. Riesner
The polysaccharide scaffold of PrP 27–30 is a common compound of natural prions and consists of α-linked polyglucose *386*, 1149–1155

**Polyphenol oxidase**

Gandía-Herrero, F., M. Jiménez-Atiénzar, J. Cabanes, F. García-Carmona and J. Escribano
Evidence for a common regulation in the activation of a polyphenol oxidase by trypsin and sodium dodecyl sulfate *386*, 601–607

**Porphyria**

Meyer, R.P., R.L.P. Lindberg, F. Hoffmann and U.A. Meyer
Cytosolic persistence of mouse brain CYP1A1 in chronic heme deficiency *386*, 1157–1164

**Prion protein**

Catharino, S., J. Buchner and S. Walter
Characterization of oligomeric species in the fibrillization pathway of the yeast prion Ure2p *386*, 633–641

Dumpitak, C., M. Beekes, N. Weinmann, S. Metzger, K.F. Winklhofer, J. Tatzelt and D. Riesner
The polysaccharide scaffold of PrP 27–30 is a common compound of natural prions and consists of α-linked polyglucose *386*, 1149–1155

Leffers, K.-W., H. Wille, J. Stöhr, E. Junger, S.B. Prusiner and D. Riesner
Assembly of natural and recombinant prion protein into fibrils *386*, 569–580

**Protease, aspartate**

Caffrey, C.R., L. Placha, C. Barinka, M. Hradilek, J. Dostál, M. Sajid, J.H. McKerrow, P. Majer, J. Konvalinka and J. Vondrášek
Homology modeling and SAR analysis of *Schistosoma japonicum* cathepsin D (SjCD) with statin inhibitors identify a unique active site steric barrier with potential for the design of specific inhibitors *386*, 339–349

Dostál, J., H. Dlouhá, P. Maloň, I. Pichová and O. Hrušková-Heidingsfeldová
The precursor of secreted aspartic proteinase Sapp1p from *Candida parapsilosis* can be activated both autocatalytically and by a membrane-bound processing proteinase *386*, 791–799

Yasuda, Y., K. Kohmura, T. Kadowaki, T. Tsukuba and K. Yamamoto
A new selective substrate for cathepsin E based on the cleavage site sequence of α2-macroglobulin *386*, 299–305

**Protease, cysteine**

Gelhaus, C., R. Vicik, T. Schirmeister and M. Leippe
Blocking effect of a biotinylated protease inhibitor on the egress of *Plasmodium falciparum* merozoites from infected red blood cells *386*, 499–502

Ghosh, M., S. Shanker, I. Siwanowicz, K. Mann, W. Machleidt and T.A. Holak
Proteolysis of insulin-like growth factor binding proteins (IGFBPs) by calpain *386*, 85–93

Hook, V., T. Toneff, M. Bogyo, D. Greenbaum, K.F. Medzihradszky, J. Neveu, W. Lane, G. Hook and T. Reisine
Inhibition of cathepsin B reduces β-amyloid production in regulated secretory vesicles of neuronal chromaffin cells: evidence for cathepsin B as a candidate β-secretase of Alzheimer's disease *386*, 931–940

Horn, M., L. Dolečková-Marešová, L. Rulíšek, M. Máša, O. Vasiljeva, B. Turk, T. Gan-Erdene, M. Baudyš and M. Mareš
Activation processing of cathepsin H impairs recognition by its propeptide *386*, 941–947

Meh, P., M. Pavšič, V. Turk, A. Baici and B. Lenarčič
Dual concentration-dependent activity of thyroglobulin type-1 domain of testican: specific inhibitor and substrate of cathepsin L *386*, 75–83

Puzer, L., S.S. Cotrin, M.H.S. Cezari, I.Y. Hirata, M.A. Juliano, I. Stefe, D. Turk, B. Turk, L. Juliano and A.K. Carmona
Recombinant human cathepsin X is a carboxymonopeptidase only: a comparison with cathepsins B and L *386*, 1191–1195

Sawano, Y., K.-i. Hatano and M. Tanokura
Susceptibility of the interchain peptide of a bromelain inhibitor precursor to the target proteases bromelain, chymotrypsin, and trypsin *386*, 491–498

**Protease inhibitor, antitrypsin**

Avrutina, O., H.-U. Schmoldt, D. Gabrijelcic-Geiger, D. Le Nguyen, C.P. Sommerhoff, U. Diederichsen and H. Kolmar
Trypsin inhibition by macrocyclic and open-chain variants of the squash inhibitor MCoTI-II *386*, 1301–1306

de Souza, A.F., R.J.S. Torquato, A.S. Tanaka and C.A.M. Sampaio
Cloning, expression and characterization of *Bauhinia variegata* trypsin inhibitor BvTI *386*, 1185–1189

**Protease inhibitor, cystatin**

Florent, I., F. Lecaille, J.-J. Montagne, F. Gauthier, J. Schrevel and G. Lalmanach
Labelling of four distinct trophozoite falcipains of *Plasmodium falciparum* by a cystatin-derived probe *386*, 401–406

**Protease inhibitor, Kunitz-type**

Araújo, A.P.U., D. Hansen, D.F. Vieira, C. de Oliveira, L.A. Santana, L.M. Beltramini, C.A.M. Sampaio, M.U. Sampaio and M.L.V. Oliva
Kunitz-type *Bauhinia bauhinioides* inhibitors devoid of disulfide bridges: isolation of the cDNAs, heterologous expression and structural studies *386*, 561–568

de Souza, A.F., R.J.S. Torquato, A.S. Tanaka and C.A.M. Sampaio
Cloning, expression and characterization of *Bauhinia variegata* trypsin inhibitor BvTI *386*, 1185–1189

**Protease inhibitor, lympho-epithelial Kazal-type inhibitor (LEKTI)**

Schechter, N.M., E.-J. Choi, Z.-M. Wang, Y. Hanakawa, J.R. Stanley, Y. Kang, G.L. Clayman and A. Jayakumar
Inhibition of human kallikreins 5 and 7 by the serine protease inhibitor lympho-epithelial Kazal-type inhibitor (LEKTI) *386*, 1173–1184

**Protease inhibitor, trappin**

Guyot, N., M.-L. Zani, P. Berger, S. Dallet-Choisy and T. Moreau
Proteolytic susceptibility of the serine protease inhibitor trappin-2 (pre-elafin): evidence for tryptase-mediated generation of elafin *386*, 391–399

**Protease inhibitor, WSCI**

Di Gennaro, S., A.G. Ficca, D. Panichi and E. Poerio
cDNA cloning and heterologous expression of a wheat proteinase inhibitor of subtilisin and chymotrypsin (WSCI) that interferes with digestive enzymes of insect pests *386*, 383–389

**Protease, metal ion-requiring**

Modesto, J.C.A., I.L.M. Junqueira-de-Azevedo, A.G.C. Neves-Ferreira, M. Fritzen, M.L.V. Oliva, P.L. Ho, J. Perales and A.M. Chudzinski-Tavassi
Insularinase A, a prothrombin activator from *Bothrops insularis* venom, is a metalloprotease derived from a gene encoding protease and disintegrin domains *386*, 589–600

Schattner, M., M. Fritzen, J. de Souza Ventura, J.C.A. Modesto, R.G. Pozner, A.M. Moura-da-Silva and A.M. Chudzinski-Tavassi
The snake venom metalloproteases berythractivase and jararhagin activate endothelial cells *386*, 369–374

**Protease, Pim1**

von Janowsky, B., K. Knapp, T. Major, M. Krayl, B. Guiard and W. Voos
Structural properties of substrate proteins determine their proteolysis by the mitochondrial AAA+ protease Pim1 *386*, 1307–1317

**Protease, pro-histoaspartic**

Valbuena, J., R. Vera, A. Puentes, M. Ocampo, J. Garcia, H. Curtidor, R. Lopez, L. Rodriguez, J. Rosas, J. Cortes, M. Forero, M. Pinto and M.E. Patarroyo
*P. falciparum* pro-histoaspartic protease (proHAP) protein peptides bind specifically to erythrocytes and inhibit the invasion process *in vitro* *386*, 361–367

**Protease, serine**

Felber, L.M., C.A. Borgoño, S.M. Cloutier, C. Kündig, T. Kishi, J. Ribeiro Chagas, P. Jichlinski, C.M. Gygi, H.-J. Leisinger, E.P. Diamandis and D. Deperthes
Enzymatic profiling of human kallikrein 14 using phage display substrate technology *386*, 291–298

Moodley, R., C. Snyman, B. Odhav and K.D. Bhoola
Visualisation of transforming growth factor-β1, tissue kallikrein, and kinin and transforming growth factor-β receptors on human clear-cell renal carcinoma cells *386*, 375–382

Schechter, N.M., E.-J. Choi, Z.-M. Wang, Y. Hanakawa, J.R. Stanley, Y. Kang, G.L. Clayman and A. Jayakumar
Inhibition of human kallikreins 5 and 7 by the serine protease inhibitor lympho-epithelial Kazal-type inhibitor (LEKTI) *386*, 1173–1184

**Proteasome**

Kühlkamp, T., V. Keitel, A. Helmer, D. Häussinger and R. Kubitz
Degradation of the sodium taurocholate cotransporting polypeptide (NTCP) by the ubiquitin-proteasome-system *386*, 1065–1074

Schmidt, M., J. Hanna, S. Elsasser and D. Finley
Proteasome-associated proteins: regulation of a proteolytic machine *386*, 725–737

**Protein disaggregation**

Weibezahn, J., C. Schlieker, P. Tessarz, A. Mogk and B. Bukau
Novel insights into the mechanism of chaperone-assisted protein disaggregation *386*, 739–744

**Protein folding**

Leal, S.S. and C.M. Gomes
Linear three-iron centres are unlikely cluster degradation intermediates during unfolding of iron-sulfur proteins *386*, 1295–1300

Sherman, W.A., G.E. Blouse, M.J. Perron, T. Tran, J.D. Shore and A. Gafni
Enthalpy measurement using calorimetry shows a significant difference in potential energy between the active and latent conformations of PAI-1 *386*, 111–116

Stemp, M.J., S. Guha, F.U. Hartl and J.M. Barral
Efficient production of native actin upon translation in a bacterial lysate supplemented with the eukaryotic chaperonin TriC *386*, 753–757

Welfle, K., F. Pratto, R. Misselwitz, J. Behlke, J.C. Alonso and H. Welfle
Role of the N-terminal region and of β-sheet residue Thr29 on the activity of the $\omega_2$ global regulator from the broad-host range *Streptococcus pyogenes* plasmid pSM19035 *386*, 881–894

Yoshinaga, Y., K. Nakatome, J. Nozaki, M. Naitoh, J. Hoseki, H. Kubota, K. Nagata and A. Koizumi
Proinsulin lacking the A7–B7 disulfide bond, $Ins2^{Akita}$, tends to aggregate due to the exposed hydrophobic surface *386*, 1077–1085

**Protein kinase, cAMP-dependent**

Hahnefeld, C., D. Moll, M. Goette and F.W. Herberg
Rearrangements in a hydrophobic core region mediate cAMP action in the regulatory subunit of PKA *386*, 623–631

**Protein purification**

Siess, A.A. and M.M. Hofstetter
Purification of $Mg^{2+}$-dependent phosphatidate phosphohydrolase from rat liver: new steps and aspects *386*, 1197–1201

**Protein translocation**

Fulgosi, H., H. Lepeduš, V. Cesar and N. Ljubešić
Differential accumulation of plastid preprotein translocon components during spruce (*Picea abies* L. Karst.) needle development *386*, 777–783

**Protein transport**

Breidert, S., R. Jacob, A. Ngezahayo, H.-A. Kolb and H.Y. Naim
Trafficking pathways of Cx49–GFP in living mammalian cells *386*, 155–160

**Proteoglycan**

Meh, P., M. Pavšič, V. Turk, A. Baici and B. Lenarčič
Dual concentration-dependent activity of thyroglobulin type-1 domain of testican: specific inhibitor and substrate of cathepsin L *386*, 75–83

**Pyruvate dehydrogenase**

Liu, X. and H. Bisswanger
Interaction of thiamin diphosphate with phosphorylated and dephosphorylated mammalian pyruvate dehydrogenase complex *386*, 11–18

**Pyruvate formate-lyase**

Selmer, T., A.J. Pierik and J. Heider
New glycyl radical enzymes catalysing key metabolic steps in anaerobic bacteria *386*, 981–988

**Pyruvate kinase**

Desmaret, S., L. Qian, B. Vanloo, K. Meerschaert, J. Van Damme, J. Grooten, J. Vandekerckhove, G.D. Prestwich and J. Gettemans
Lysophosphatidic acid affinity chromatography reveals pyruvate kinase as a specific LPA-binding protein *386*, 1137–1147

**Quaternary structure**

Lamkemeyer, T., R.J. Paul, W. Stöcker, I. Yiallouros and B. Zeis
Macromolecular isoforms of *Daphnia magna* haemoglobin *386*, 1087–1096

**Quercetin**

Ludwig-Müller, J., S.V. Tokalov, A. Franz and H.O. Gutzeit
Quercetin metabolism in vital and apoptotic human leukaemia cells *386*, 279–283

**Rab protein**

Eberth, A., R. Dvorsky, C.F.W. Becker, A. Beste, R.S. Goody and M.R. Ahmadian
Monitoring the real-time kinetics of the hydrolysis reaction of guanine nucleotide-binding proteins *386*, 1105–1114

Osanai, K., K. Takahashi, K. Nakamura, M. Takahashi, M. Ishigaki, T. Sakuma, H. Toga, T. Suzuki and D.R. Voelker
Expression and characterization of Rab38, a new member of the Rab small G protein family *386*, 143–153

Teber, I., F. Nagano, J. Kremerskothen, K. Bilbilis, B. Goud and A. Barnekow
Rab6 interacts with the mint3 adaptor protein *386*, 671–677

**Radical intermediate**

Bennati, M., F. Lendzian, M. Schmittel and H. Zipse
Spectroscopic and theoretical approaches for studying radical reactions in class I ribonucleotide reductase *386*, 1007–1022

Buckel, W., B.M. Martins, A. Messerschmidt and B.T. Golding
Radical-mediated dehydration reactions in anaerobic bacteria *386*, 951–959

Layer, G., E. Kervio, G. Morlock, D.W. Heinz, D. Jann, J. Retey and W.-D. Schubert
Structural and functional comparison of HemN to other radical SAM enzymes *386*, 971–980

Selmer, T., A.J. Pierik and J. Heider
New glycyl radical enzymes catalysing key metabolic steps in anaerobic bacteria *386*, 981–988

**Radical SAM enzyme**

Layer, G., E. Kervio, G. Morlock, D.W. Heinz, D. Jahn, J. Retey and W.-D. Schubert
Structural and functional comparison of HemN to other radical SAM enzymes *386*, 971–980

**Raf protein**

Robubi, A., T. Mueller, J. Fueller, M. Hekman, U.R. Rapp and T. Dandekar
B-Raf and C-Raf signaling investigated in a simplified model of the mitogenic kinase cascade *386*, 1165–1171

**Ras protein**

Eberth, A., R. Dvorsky, C.F.W. Becker, A. Beste, R.S. Goody and M.R. Ahmadian
Monitoring the real-time kinetics of the hydrolysis reaction of guanine nucleotide-binding proteins *386*, 1105–1114

Giehl, K.
Oncogenic Ras in tumour progression and metastasis *386*, 193–205

Robubi, A., T. Mueller, J. Fueller, M. Hekman, U.R. Rapp and T. Dandekar
B-Raf and C-Raf signaling investigated in a simplified model of the mitogenic kinase cascade *386*, 1165–1171

**Reactive oxygen species**

Derouet-Hümbert, E., K. Roemer and M. Bureik
Adrenodoxin (Adx) and CYP11A1 (P450scc) induce apoptosis by the generation of reactive oxygen species in mitochondria*386*, 453–461

Townley, H.E., K. McDonald, G.I. Jenkins, M.R. Knight and C.J. Leaver
Ceramides induce programmed cell death in *Arabidopsis* cells in a calcium-dependent manner *386*, 161–166

**Recoverin**

Komolov, K.E., D.V. Zinchenko, V.A. Churumova, S.A. Vaganova, O.H. Weiergräber, I.I. Senin, P.P. Philippov and K.-W. Koch
One of the $Ca^{2+}$ binding sites of recoverin exclusively controls interaction with rhodopsin kinase *386*, 285–289

**Rhodamine**

Eberth, A., R. Dvorsky, C.F.W. Becker, A. Beste, R.S. Goody and M.R. Ahmadian
Monitoring the real-time kinetics of the hydrolysis reaction of guanine nucleotide-binding proteins *386*, 1105–1114

**Rhodopsin kinase**

Komolov, K.E., D.V. Zinchenko, V.A. Churumova, S.A. Vaganova, O.H. Weiergräber, I.I. Senin, P.P. Philippov and K.-W. Koch
One of the $Ca^{2+}$ binding sites of recoverin exclusively controls interaction with rhodopsin kinase *386*, 285–289

**Riboflavin synthase**

Fischer, M., I. Haase, R. Feicht, N. Schramek, P. Köhler, P. Schieberle and A. Bacher
Evolution of vitamin $B_2$ biosynthesis: riboflavin synthase of *Arabidopsis thaliana* and its inhibition by riboflavin *386*, 417–428

Illarionov, B., I. Haase, M. Fischer, A. Bacher and N. Schramek
Pre-steady-state kinetic analysis of riboflavin synthase using a pentacyclic reaction intermediate as substrate *386*, 127–136

**Ribonucleotide reductase, aerobic**

Bennati, M., F. Lendzian, M. Schmittel and H. Zipse
Spectroscopic and theoretical approaches for studying radical reactions in class I ribonucleotide reductase *386*, 1007–1022

**Ribonucleotide reductase, anaerobic**

Selmer, T., A.J. Pierik and J. Heider
New glycyl radical enzymes catalysing key metabolic steps in anaerobic bacteria *386*, 981–988

**Ribosome**

Agmon, I., A. Bashan, R. Zarivach and A. Yonath
Symmetry at the active site of the ribosome: structural and functional implications *386*, 833–844

Wilson, D.N., J.M. Harms, K.H. Nierhaus, F. Schlünzen and P. Fucini
Species-specific antibiotic-ribosome interactions: implications for drug development *386*, 1239–1252

**Ribosome-inactivating protein**

Aceto, S., A. Di Maro, B. Conforto, G.G. Siniscalco, A. Parente, P. Delli Bovi and L. Gaudio
Nicking activity on pBR322 DNA of ribosome inactivating proteins from *Phytolacca dioica* L. leaves *386*, 307–317

**Riboswitch**

Waldminghaus, T., A. Fippinger, J. Alfsmann and F. Narberhaus
RNA thermometers are common in α- and γ-proteobacteria *386*, 1279–1286

**RNA, catalytic**

Romero-López, C., A. Barroso-delJesus, E. Puerta-Fernández and A. Berzal-Herranz
Interfering with hepatitis C virus IRES activity using RNA molecules identified by a novel *in vitro* selection method *386*, 183–190

**RNA interference (RNAi)**

Chen, P.Y. and G. Meister
microRNA-guided posttranscriptional gene regulation *386*, 1205–1218

Werk, D., S. Schubert, V. Lindig, H.-P. Grunert, H. Zeichhardt, V.A. Erdmann and J. Kurreck
Developing an effective RNA interference strategy against a plus-strand RNA virus: silencing of coxsackievirus B3 and its cognate coxsackievirus-adenovirus receptor *386*, 857–863

**RNA, non-coding**

Vogel, J. and C.M. Sharma
How to find small noncoding RNAs in bacteria *386*, 1219–1238

Willkomm, D.K. and R.K. Hartmann
6S RNA - an ancient regulator of bacterial RNA polymerase rediscovered *386*, 1273–1277

**RNA polymerase**

Willkomm, D.K. and R.K. Hartmann
6S RNA - an ancient regulator of bacterial RNA polymerase rediscovered *386*, 1273–1277

**RNA processing**

Gowrishankar, G., R. Winzen, F. Bollig, B. Ghebremedhin, N. Redich, B. Ritter, K. Resch, M. Kracht and H. Holtmann
Inhibition of mRNA deadenylation and degradation by ultraviolet light *386*, 1287–1293

Hui, J. and A. Bindereif
Alternative pre-mRNA splicing in the human system: unexpected role of repetitive sequences as regulatory elements *386*, 1265–1271

Vogel, A., O. Schilling, B. Späth and A. Marchfelder
The tRNase Z family of proteins: physiological functions, substrate specificity and structural properties *386*, 1253–1264

Vogel, J. and C.M. Sharma
How to find small noncoding RNAs in bacteria *386*, 1219–1238

**RNA, ribosomal**

Hillebrand, A., R. Wurm, A. Menzel and R. Wagner
The seven *E. coli* ribosomal RNA operon upstream regulatory regions differ in structure and transcription factor binding efficiencies *386*, 523–534

**RNA sensor**

Waldminghaus, T., A. Fippinger, J. Alfsmann and F. Narberhaus
RNA thermometers are common in α- and γ-proteobacteria *386*, 1279–1286

**S100 protein**

Leukert, N., C. Sorg and J. Roth
Molecular basis of the complex formation between the two calcium-binding proteins S100A8 (MRP8) and S100A9 (MRP14) *386*, 429–434

**Scrapie**

Dumpitak, C., M. Beekes, N. Weinmann, S. Metzger, K.F. Winklhofer, J. Tatzelt and D. Riesner
The polysaccharide scaffold of PrP 27–30 is a common compound of natural prions and consists of α-linked polyglucose *386*, 1149–1155

**Septin**

Farkasovsky, M., P. Herter, B. Voß and A. Wittinghofer
Nucleotide binding and filament assembly of recombinant yeast septin complexes *386*, 643–656

**Serpin**

Hejgaard, J.
Inhibitory plant serpins with a sequence of three glutamine residues in the reactive center *386*, 1319–1323

**Signal transduction**

Abdelmohsen, K., C. von Montfort, D. Stuhlmann, P.A. Gerber, U.K.M. Decking, H. Sies and L.-O. Klotz
Doxorubicin induces EGF receptor-dependent downregulation of gap junctional intercellular communication in rat liver epithelial cells *386*, 217–223

Barthel A. and L.-O. Klotz
Phosphoinositide 3–kinase signaling in the cellular response to oxidative stress *386*, 207–216

Desmaret, S., L. Qian, B. Vanloo, K. Meerschaert, J. Van Damme, J. Grooten, J. Vandekerckhove, G.D. Prestwich and J. Gettemans
Lysophosphatidic acid affinity chromatography reveals pyruvate kinase as a specific LPA-binding protein *386*, 1137–1147

Dobreva, I., O. Zschörnig, G. Waeber, R.W. James and C. Widmann
Cholesterol is the major component of native lipoproteins activating the p38 mitogen-activated protein kinases *386*, 909–918

Giehl, K.
Oncogenic Ras in tumour progression and metastasis *386*, 193–205

Hahnefeld, C., D. Moll, M. Goette and F.W. Herberg
Rearrangements in a hydrophobic core region mediate cAMP action in the regulatory subunit of PKA *386*, 623–631

Hart, S., O.M. Fischer, N. Prenzel, E. Zwick-Wallasch, M. Schneider, L. Hennighausen and A. Ullrich
GPCR-induced migration of breast carcinoma cells depends on both EGFR signal transactivation and EGFR-independent pathways *386*, 845–855

Imamichi, Y., O. Waidmann, R. Hein, P. Eleftheriou, K. Giehl and A. Menke
TGFβ-induced focal complex formation in epithelial cells is mediated by activated ERK and JNK MAP kinases and is independent of Smad4 *386*, 225–236

Robubi, A., T. Mueller, J. Fueller, M. Hekman, U.R. Rapp and T. Dandekar
B-Raf and C-Raf signaling investigated in a simplified model of the mitogenic kinase cascade *386*, 1165–1171

Rovida, E., B. Lugli, V. Barbetti, S. Giuntoli, M. Olivotto and P. Dello Sbarba
Focal adhesion kinase is redistributed to focal complexes and mediates cell spreading in macrophages in response to M-CSF *386*, 919–929

**Sodium taurocholate cotransporting polypeptide (NTCP)**

Kühlkamp, T., V. Keitel, A. Helmer, D. Häussinger and R. Kubitz
Degradation of the sodium taurocholate cotransporting polypeptide (NTCP) by the ubiquitin-proteasome-system *386*, 1065–1074

**Spliceosome**

Will, C.L. and R. Lührmann
Splicing of a rare class of introns by the U12-dependent spliceosome *386*, 713–724

**Splicing enhancer**

Hui, J. and A. Bindereif
Alternative pre-mRNA splicing in the human system: unexpected role of repetitive sequences as regulatory elements *386*, 1265–1271

**Staurosporine**

Bureik, M., A. Mion, C.J. Kenyon and R. Bernhardt
Inhibition of aldosterone biosynthesis by staurosporine *386*, 663–669

**Streptogramin**

Wilson, D.N., J.M. Harms, K.H. Nierhaus, F. Schlünzen and P. Fucini
Species-specific antibiotic-ribosome interactions: implications for drug development *386*, 1239–1252

**Subunit composition**

Lamkemeyer, T., R.J. Paul, W. Stöcker, I. Yiallouros and B. Zeis
Macromolecular isoforms of *Daphnia magna* haemoglobin *386*, 1087–1096

**Testican**

Meh, P., M. Pavšič, V. Turk, A. Baici and B. Lenarčič
Dual concentration-dependent activity of thyroglobulin type-1 domain of testican: specific inhibitor and substrate of cathepsin L *386*, 75–83

**Thiamin diphosphate**

Liu, X. and H. Bisswanger
Interaction of thiamin diphosphate with phosphorylated and dephosphorylated mammalian pyruvate dehydrogenase complex *386*, 11–18

**Thiolate heme protein**

Jung, C., V. Schünemann, F. Lendzian, A.X. Trautwein, J. Contzen, M. Galander, L.H. Böttger, M. Richter and A.-L. Barra
Spectroscopic characterization of the iron-oxo intermediate in cytochrome P450 *386*, 1043–1053

**Thioredoxin**

Deponte, M., K. Becker and S. Rahlfs
*Plasmodium falciparum* glutaredoxin-like proteins *386*, 33–40

Nickel, C., M. Trujillo, S. Rahlfs, M. Deponte, R. Radi and K. Becker
*Plasmodium falciparum* 2-Cys peroxiredoxin reacts with plasmoredoxin and peroxynitrite *386*, 1129–1136

**Transactivation**

Shen, H.C., G. Buchanan, L.M. Butler, J. Prescott, M. Henderson, W.D. Tilley and G.A. Coetzee
GRIP1 mediates the interaction between the amino- and carboxyl-termini of the androgen receptor *386*, 69–74

Smith, A.E.F., F. Farzaneh and K.G. Ford
Single zinc-finger extension: enhancing transcriptional activity and specificity of three-zinc-finger proteins *386*, 95–99

**Transcription**

Di Valentin, E., S. Bontems, L. Habran, O. Jolois, N. Markine-Goriaynoff, A. Vanderplasschen, C. Sadzot-Delvaux and J. Piette
Varicella-zoster virus IE63 protein represses the basal transcription machinery by disorganizing the pre-initiation complex *386*, 255–267

Eberharter, A., R. Ferreira and P. Becker
Dynamic chromatin: concerted nucleosome remodelling and acetylation *386*, 745–751

Shen, H.C., G. Buchanan, L.M. Butler, J. Prescott, M. Henderson, W.D. Tilley and G.A. Coetzee
GRIP1 mediates the interaction between the amino- and carboxyl-termini of the androgen receptor *386*, 69–74

Willkomm, D.K. and R.K. Hartmann
6S RNA – an ancient regulator of bacterial RNA polymerase rediscovered *386*, 1273–1277

**Transcription factor**

Al Sarraj, J., C. Vinson and G. Thiel
Regulation of asparagine synthetase gene transcription by the basic region leucine zipper transcription factors ATF5 and CHOP *386*, 873–879

Di Valentin, E., S. Bontems, L. Habran, O. Jolois, N. Markine-Goriaynoff, A. Vanderplasschen, C. Sadzot-Delvaux and J. Piette
Varicella-zoster virus IE63 protein represses the basal transcription machinery by disorganizing the pre-initiation complex *386*, 255–267

Hillebrand, A., R. Wurm, A. Menzel and R. Wagner
The seven *E. coli* ribosomal RNA operon upstream regulatory regions differ in structure and transcription factor binding efficiencies *386*, 523–534

Lienau, J., C. Kaletta, M. Teifel, K. Naujoks, K. Bhoola and J. Plendl
Morphology and transfection study of human microvascular endothelial cell angiogenesis: an *in vitro* three-dimensional model *386*, 167–175

Smith, A.E.F., F. Farzaneh and K.G. Ford
Single zinc-finger extension: enhancing transcriptional activity and specificity of three-zinc-finger proteins *386*, 95–99

**Transcriptional repressor**

Welfle, K., F. Pratto, R. Misselwitz, J. Behlke, J.C. Alonso and H. Welfle
Role of the N-terminal region and of β-sheet residue Thr29 on the activity of the $\omega_2$ global regulator from the broad-host range *Streptococcus pyogenes* plasmid pSM19035 *386*, 881–894

**Transforming growth factor β (TGFβ)**

Imamichi, Y., O. Waidmann, R. Hein, P. Eleftheriou, K. Giehl and A. Menke
TGFβ-induced focal complex formation in epithelial cells is mediated by activated ERK and JNK MAP kinases and is independent of Smad4 *386*, 225–236

Moodley, R., C. Snyman, B. Odhav and K.D. Bhoola
Visualisation of transforming growth factor-β1, tissue kallikrein, and kinin and transforming growth factor-β receptors on human clear-cell renal carcinoma cells *386*, 375–382

Schmidt-Schultz, T.H. and M. Schultz
Intact growth factors are conserved in the extracellular matrix of ancient human bone and teeth: a storehouse for the study of human evolution in health and disease *386*, 767–776

**Transhydroxylation**

Boll, M., B. Schink, A. Messerschmidt and P.M.H. Kroneck
Novel bacterial molybdenum and tungsten enzymes: three-dimensional structure, spectroscopy, and reaction mechanism *386*, 999–1006

**Transition metal complex**

Chaudhuri, P., K. Wieghardt, T. Weyhermüller, T.K. Paine, S. Mukherjee and C. Mukherjee
Biomimetic metal-radical reactivity: aerial oxidation of alcohols, amines, aminophenols and catechols catalyzed by transition metal complexes *386*, 1023–1033

**Translational activator Cbs1p**

Krause-Buchholz, U., K. Schöbel, S. Lauffer and G. Rödel
*Saccharomyces cerevisiae* translational activator Cbs1p is associated with translationally active mitochondrial ribosomes *386*, 407–415

**Translocon of the inner membrane (Tic)**

Fulgosi, H., H. Lepeduš, V. Cesar and N. Ljubešić
Differential accumulation of plastid preprotein translocon components during spruce (*Picea abies* L. Karst.) needle development *386*, 777–783

**Translocon of the outer membrane (Toc)**

Fulgosi, H., H. Lepeduš, V. Cesar and N. Ljubešić
Differential accumulation of plastid preprotein translocon components during spruce (*Picea abies* L. Karst.) needle development *386*, 777–783

**Trappin-2**

Guyot, N., M.-L. Zani, P. Berger, S. Dallet-Choisy and T. Moreau
Proteolytic susceptibility of the serine protease inhibitor trappin-2 (pre-elafin): evidence for tryptase-mediated generation of elafin *386*, 391–399

**Trehalose**

Ganea, E. and J.J. Harding
Trehalose and 6-aminohexanoic acid stabilize and renature glucose-6-phosphate dehydrogenase inactivated by glycation and by guanidinium hydrochloride *386*, 269–278

**tRNase Z**

Vogel, A., O. Schilling, B. Späth and A. Marchfelder
The tRNase Z family of proteins: physiological functions, substrate specificity and structural properties *386*, 1253–1264

**Trypsin**

Avrutina, O., H.-U. Schmoldt, D. Gabrijelcic-Geiger, D. Le Nguyen, C.P. Sommerhoff, U. Diederichsen and H. Kolmar
Trypsin inhibition by macrocyclic and open-chain variants of the squash inhibitor MCoTI-II *386*, 1301–1306

Sawano, Y., K.-i. Hatano and M. Tanokura
Susceptibility of the interchain peptide of a bromelain inhibitor precursor to the target proteases bromelain, chymotrypsin, and trypsin *386*, 491–498

**Tumor necrosis factor**

Mężyk-Kopeć, R., M. Bzowska, M. Bzowska, B. Mickowska, P. Mak, J. Potempa and J. Bereta
Effects of elastase and cathepsin G on the levels of membrane and soluble TNFα *386*, 801–811

**Tungsten enzyme**

Boll, M., B. Schink, A. Messerschmidt and P.M.H. Kroneck
Novel bacterial molybdenum and tungsten enzymes: three-dimensional structure, spectroscopy, and reaction mechanism *386*, 999–1006

**Tyrosinase**

Gandía-Herrero, F., M. Jiménez-Atiénzar, J. Cabanes, F. García-Carmona and J. Escribano
Evidence for a common regulation in the activation of a polyphenol oxidase by trypsin and sodium dodecyl sulfate *386*, 601–607

**Ubiquitin**

Kühlkamp, T., V. Keitel, A. Helmer, D. Häussinger and R. Kubitz
Degradation of the sodium taurocholate cotransporting polypeptide (NTCP) by the ubiquitin-proteasome-system *386*, 1065–1074

**UDP-galactopyranose mutase**

Bakker, H., B. Kleczka, R. Gerardy-Schahn and F.H. Routier
Identification and partial characterization of two eukaryotic UDP-galactopyranose mutases *386*, 657–661

**Ultraspiracle protein**

Nieva, C., T. Gwóźdź, J. Dutko-Gwóźdź, J. Wiedenmann, M. Spindler-Barth, E. Wieczorek, J. Dobrucki, D. Duś, V. Henrich, A. Ożyhar and K.-D. Spindler
Ultraspiracle promotes nuclear localization of ecdysteroid receptor in mammalian cells *386*, 463–470

**Upstream activating sequence (UAS)**

Hillebrand, A., R. Wurm, A. Menzel and R. Wagner
The seven *E. coli* ribosomal RNA operon upstream regulatory regions differ in structure and transcription factor binding efficiencies *386*, 523–534

**UV light**

Gowrishankar, G., R. Winzen, F. Bollig, B. Ghebremedhin, N. Redich, B. Ritter, K. Resch, M. Kracht and H. Holtmann
Inhibition of mRNA deadenylation and degradation by ultraviolet light *386*, 1287–1293

**Varicella-zoster virus**

Di Valentin, E., S. Bontems, L. Habran, O. Jolois, N. Markine-Goriaynoff, A. Vanderplasschen, C. Sadzot-Delvaux and J. Piette
Varicella-zoster virus IE63 protein represses the basal transcription machinery by disorganizing the pre-initiation complex *386*, 255–267

**Vesicle trafficking**

Osanai, K., K. Takahashi, K. Nakamura, M. Takahashi, M. Ishigaki, T. Sakuma, H. Toga, T. Suzuki and D.R. Voelker
Expression and characterization of Rab38, a new member of the Rab small G protein family *386*, 143–153

**Vitamin $B_2$**

Fischer, M., I. Haase, R. Feicht, N. Schramek, P. Köhler, P. Schieberle and A. Bacher
Evolution of vitamin $B_2$ biosynthesis: riboflavin synthase of *Arabidopsis thaliana* and its inhibition by riboflavin *386*, 417–428

**Wheat proteinase inhibitor of subtilisin and chymotrypsin (WSCI)**

Di Gennaro, S., A.G. Ficca, D. Panichi and E. Poerio
cDNA cloning and heterologous expression of a wheat proteinase inhibitor of subtilisin and chymotrypsin (WSCI) that interferes with digestive enzymes of insect pests *386*, 383–389

**Zinc finger protein**

Smith, A.E.F., F. Farzaneh and K.G. Ford
Single zinc-finger extension: enhancing transcriptional activity and specificity of three-zinc-finger proteins *386*, 95–99